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# Statement for Management Yellowstone National Park

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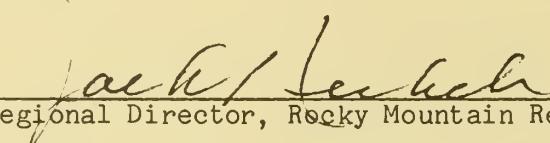
August 1986



The Statement for Management (SFM) provides an up-to-date inventory of the park's condition and an analysis of its problems. It does not involve any prescriptive decisions on future management and use of the park, but it provides a format for evaluating conditions and identifying major issues and information voids.

Recommended:   
John Bunn  
Superintendent, Yellowstone National Park

Date: 7/28/86

Approved:   
Jack L. Lusk  
Regional Director, Rocky Mountain Region  
ACUNG

Date: 8/4/86

## PREAMBLE

The greatest challenge now facing land managers in the greater Yellowstone ecosystem is integrating a variety of agency mandates and public needs in a way that will maintain the integrity of the largest nearby intact natural ecosystem in the temperate zone of the earth. In recent years, both managers and the public have become increasingly aware of this challenge and have responded to it with many boundary-crossing programs and concepts. For a host of ecological reasons (some of which are only now beginning to be understood) it is not possible for managers in any part of the greater Yellowstone to manage their units in isolation. The time when national parks could be perceived as autonomous islands or when national forests were guided by a uniform management direction wherever they were located is past. The evolution of ecosystem management thought has been conditioned by encroaching civilization and scientific knowledge. Today, both public and private lands in the greater Yellowstone ecosystem are inextricably entangled.

A welcome side effect of the growing realization that all parts of this ecosystem depend on all other parts has been a heightened recognition of the remarkable qualities of the lands that border Yellowstone park. The park itself, so long seen as a "crown jewel" of wild nature, was for many years viewed with no reference to its nonpark setting. Because of extensive scientific research involving many elements of the natural setting, the old stereotype of the park being surrounded by lands that were somehow less "important" is now overcome. From an ecological perspective, the entire ecosystem has scientific and cultural values that can be demeaned by management actions in any part.

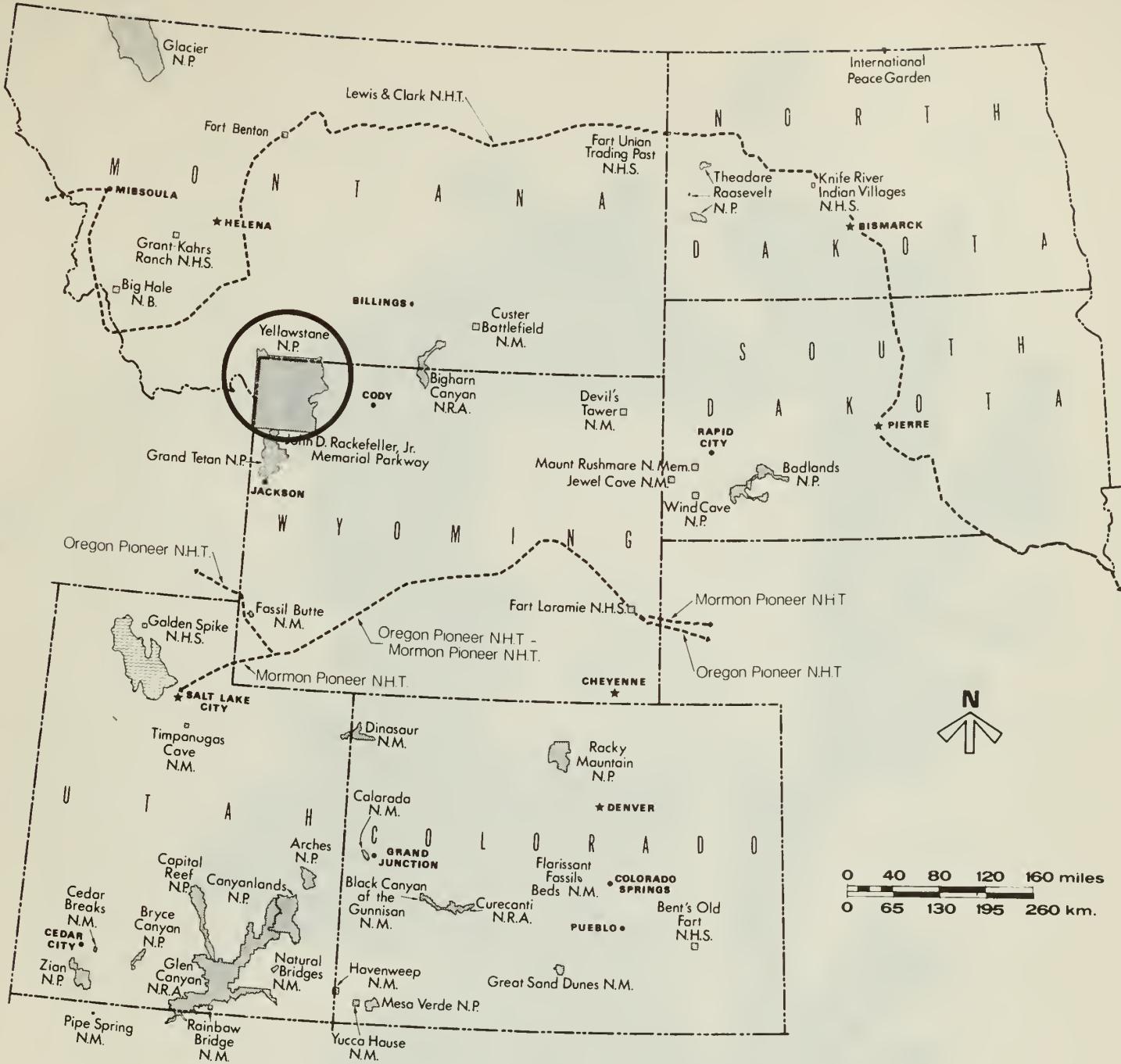
The National Park Service's most pressing concern is to ensure the welfare of Yellowstone park and to be watchful that management actions taken outside the park boundaries do not impair the ability to meet legal obligations in protecting Yellowstone resources. It is well known, for example, that external actions, beyond the administrative control of the National Park Service, could impair the ability to protect the grizzly bear, maintain natural elk or bison populations, or perpetuate naturally occurring levels

of geothermal activity in the park. However, dealing with management issues in the greater Yellowstone ecosystem only in terms of their immediate effects on the park is taking a narrow, short-term view of the situation when a broader vision is infinitely preferable. The following document is prepared in that spirit.

Among its other recent distinguishments, Yellowstone park was set aside as a U.N. Biosphere Reserve in 1976 and was designated a World Heritage Site in 1978. These honors bring with them responsibilities. The attention of the world is focused on the park, and the manner in which America cares for the park is the subject of intense international attention. Unfortunately, the responsibilities associated with these honors are not simply fulfilled. Like the original act of creating the park and like the National Park Service legislation that guides management of the park, the more recent honorary designations do not fully take into account the complexity of managing the park when its fate is so bound up with the fate of surrounding nonpark lands.

Given the considerable international attention that the Yellowstone area receives and given the long-felt conviction that the Yellowstone landscape is one of the most valuable natural treasures, it is clear that the United States has more at stake here than in most other situations where national parks, national forests, and other management units must cooperate and integrate their mandates.

Being the oldest of American's "Old Line Parks" and faced with several years of austere operations budgets, Yellowstone has begun to look a little "ragged at the edges." If Yellowstone is to continue to take the lead on a national and international scale, funding levels must be established to assure that not only the natural resources are preserved but also that the physical plant is preserved.



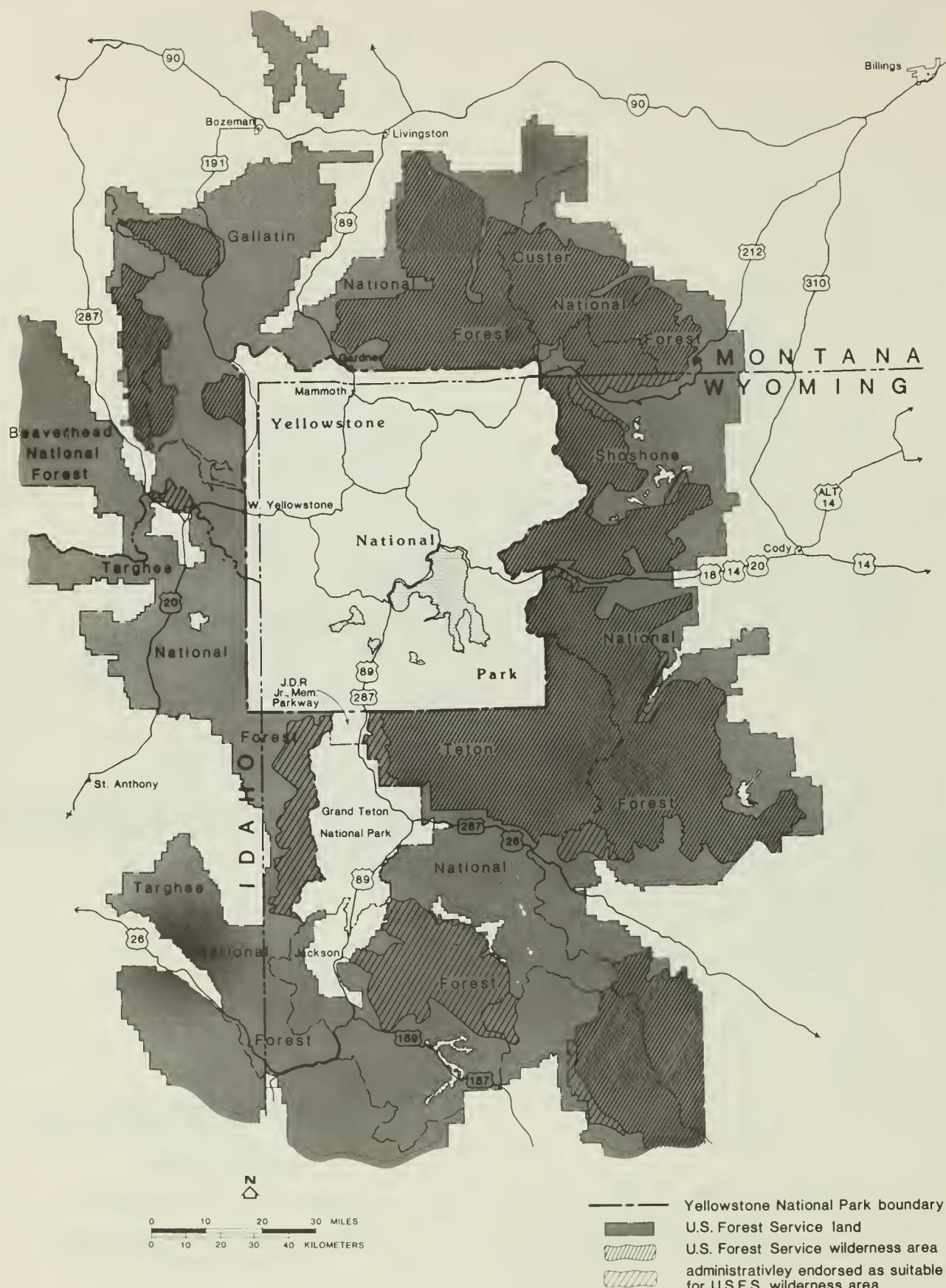
## Legend

- Locations of Major Cities
- Locations of State Capitals
- [ ] State Boundary Lines
- [ ] National Park Service Areas
- National Park Service Historical Trails

# ROCKY MOUNTAIN REGION

National Park Service

United States Department  
of the Interior

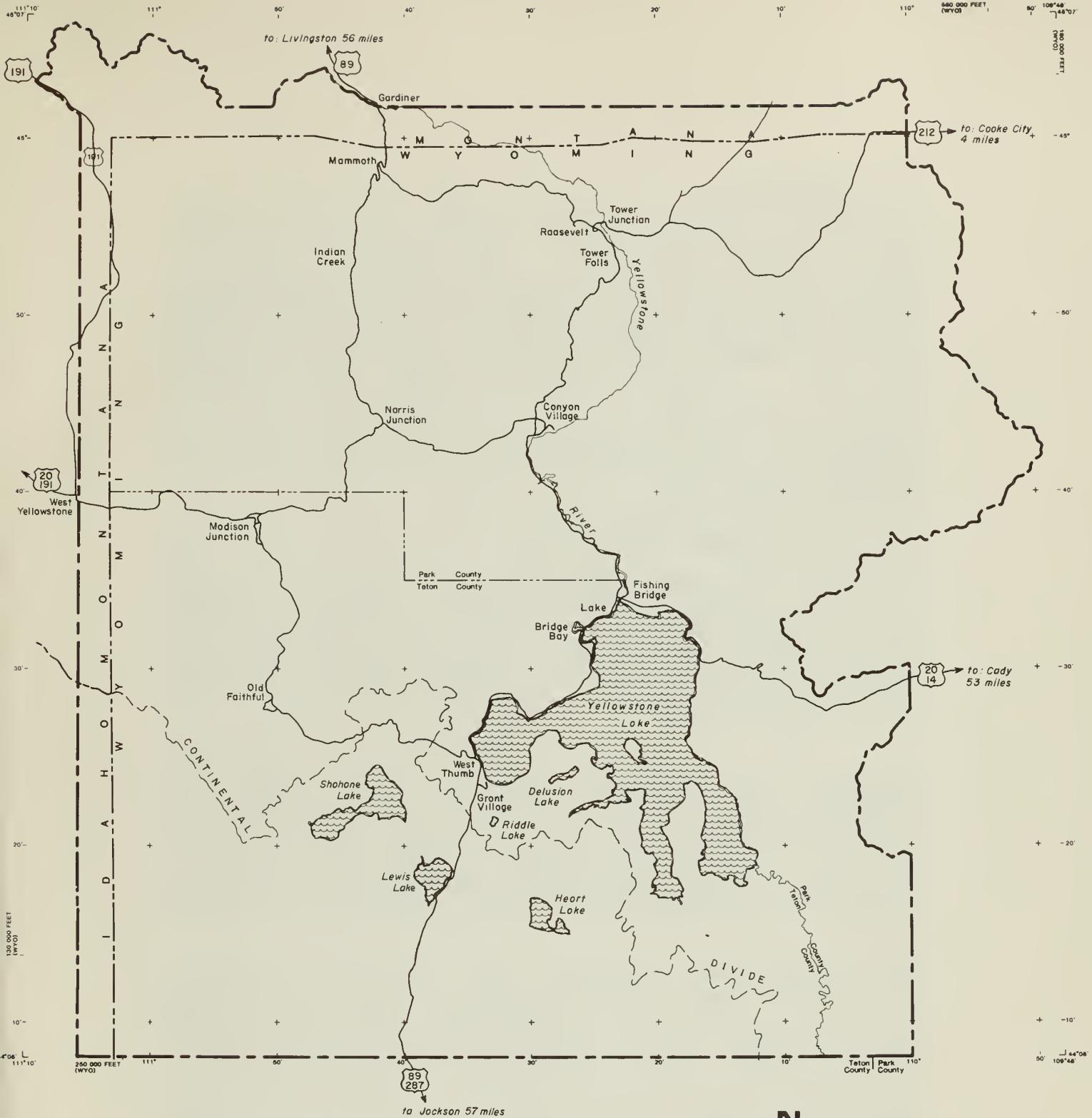


## VICINITY MAP

### YELLOWSTONE NATIONAL PARK

United States Department of the Interior - National Park Service

101-60,016  
JULY 84 RMRO



legend

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## BOUNDARY MAP YELLOWSTONE NATIONAL PARK

United States Department of the Interior - National Park Service

## I. LOCATION

Yellowstone National Park consists of 3,400 square miles located primarily in the northwest corner of Wyoming with portions extending into south-central Montana and east-central Idaho. The park lies within Idaho's Fremont County, Montana's Park and Gallatin Counties, and Wyoming's Teton and Park Counties. The park is a part of Montana's First Congressional District and Idaho's Second Congressional District. Wyoming is represented by an At-Large congressional delegation. Yellowstone National Park's proximity to other National Park Service areas is shown on the Rocky Mountain Region map.

## II. PURPOSE AND SIGNIFICANCE

Yellowstone National Park, by the Act of March 1, 1872 (17 Stat. 32), was "dedicated and set apart as a public park or pleasure ground for the benefit and enjoyment of the people" and "for the preservation, from injury or spoliation of all timber, mineral deposits, natural curiosities or wonders. . .and their retention in their natural condition."

Since 1872, additional legislation and management policies have further defined the purpose of Yellowstone National Park to prohibit hunting of all birds and mammals within the boundary and to regulate fishing. The park is managed as a natural area so as to conserve, perpetuate, and portray as a composite whole the indigenous aquatic and terrestrial fauna and flora, geology, and scenic landscape.

The commanding features that initially attracted interest and led to the reservation of Yellowstone as a national park were geological--the geothermal phenomena, the colorful Grand Canyon of the Yellowstone River, and the size and elevation of Yellowstone Lake.

The park has the world's greatest system of fumaroles, boiling springs, and geysers. There are nine major "basins" of geyser and hot spring activity in the park and over 100 clusters of hot springs spread through an area of 1,800 square miles. These geysers and hot springs probably were responsible more than any other feature for the park's establishment.

Second in size only to the Grand Canyon of the Colorado, the Grand Canyon of the Yellowstone is a

unique attraction, and evidence of active geological forces is still exhibited in the Yellowstone Country offering a window on the earth's interior.

Yellowstone Lake--the largest body of water above 7,500 feet elevation on the North American continent, with a 110-mile shoreline, 139 square miles in area, and a maximum depth of 320 feet--supports the largest natural cutthroat trout population in the world.

With the changing values of American society, wilderness and wildlife resources play an increasingly important role. Ninety-nine percent of the park's 3,400 square miles remains undeveloped in a primitive wilderness condition including a wide range of habitat types that support one of the continent's largest and most varied wildlife populations. This includes several threatened or endangered species, such as the grizzly bear, bald eagle, and peregrine falcon. It is one of nine national parks in the United States that is listed as a U.S. Biosphere Reserve by the International Union for the Conservation of Nature (IUCN). (There are 33 parks and equivalent reserves in the U.S. as part of IUCN.) Yellowstone was also designated a World Heritage Site by the IUCN in 1978.

The human history of the park includes many cultural sites up to 10,000 years old. More recent history reflects the national park movement after establishment of Yellowstone National Park and demonstrates the evolution of management policies for natural areas as well as early visitor facility development by the Park Service and concessioners.

In 1872, at a point in this nation's history when only a handful of people were convinced that American's natural resources were limited, this world's first national park was created. Today, with the nation and the park facing environmental limits, the original purpose of Yellowstone National Park must be translated in terms of contemporary realities; as such, it should read:

Yellowstone National Park will be perpetuated as part of a larger natural ecosystem in as near original conditions as possible for its inspirational, educational, cultural, and scientific value for this and future generations.

### III. INFLUENCES: INVENTORY AND ANALYSIS

#### A. LEGISLATIVE AND ADMINISTRATIVE REQUIREMENTS

The Act of March 1, 1872, that established Yellowstone National Park, established the basic framework for the unique land-use policy embodied within the present national park system.

Subsequent legislation related directly to such diverse park problems as concessions, water rights, school facilities, park protection, lease of lands, and wildlife management; the most pertinent are summarized as follows:

The Act of May 7, 1894, provided for the protection of birds and mammals within Yellowstone, prohibited hunting, and regulated fishing.

The Act of August 3, 1894, restricted the granting of leases for hotels and outbuildings against inclusion of lands lying within 1/8 mile of any geyser, Yellowstone Falls, the Grand Canyon, Mammoth Hot Springs, or any object of curiosity.

The Act of June 4, 1906, extended the Secretary's authority to enter into leases for the transaction of "business in the Yellowstone National Park. . .as the comfort and convenience of visitors may require, for the construction and maintenance of substantial hotel buildings and buildings for the protection of the stage, stock, and equipment."

The Act of April 9, 1924, authorized the Secretary "to construct, reconstruct, and improve roads and trails, inclusive of necessary bridges, in the National Parks and Monuments under the jurisdiction of the Department of Interior."

The Act of March 1, 1928 (45 Stat. 1435), changed the east boundary to conform more closely to natural topographic features and to include lands known as the Gallatin Addition at the northwest corner of the park which contained petrified tree deposits and some elk winter range.

Public Law 592, 71st Congress (January 31, 1931), authorized the construction of the Beartooth Highway entirely outside and northeast of the park as an

approach road to serve the park. Land jurisdiction remained vested in the States of Wyoming and Montana.

A Presidential Proclamation of October 20, 1932, as authorized by the Congressional Act of May 26, 1926 (44 Stat. 656), added land to the north known as the Gardiner Addition to include additional wildlife winter range.

Title 4, U.S.C. 105, 61 Stat. 644, State, and so forth, taxation affecting Federal areas, June 30, 1947. Provides that State sales tax may be collected within the park as if it were part of the State.

Title 16, U.S.C., 40a-40c, 62 Stat. 338, educational facilities for dependents of employees--payment to school districts, June 4, 1948. Provides that money from entrance or visitor-use fees may be used for payment to the school district for children of Federal employees attending State schools or may be used for construction and for operation of schools on Federal property.

Public Law 95-625, 95th Congress (November 10, 1978), Title VI, Section 601, of this law authorizes the Secretary of the Interior to acquire and upgrade concession facilities owned by the Yellowstone Park Company.

Administrative Constraints (from the approved Master Plan, June 11, 1974)

a. To prevent excessive impact from overnight use, overnight concession accommodations will not exceed an aggregate total of 8,300 pillow count, and campsites will not exceed an aggregate total of 2,700.

b. Development shall be excluded from thermal areas; however, walking path access and small self-guiding interpretive devices may be permitted. As new thermal features appear, they will be allowed to develop without interference from man unless they concern the safety of the public.

c. To maintain the quality of a "winter wilderness," park roads will not be plowed in the winter except for the Gardiner-Northeast Entrance Road. Oversnow vehicles will be restricted to unplowed roadways. Limited eating facilities and overnight shelter may be provided in the interior of the park.

d. Except for the campground, Norris Basin shall continue to operate as a day-use area.

e. The marinas at Grant Village and at Bridge Bay will neither be expanded nor will any additional marinas be provided in the park. Facilities for the disposal of sanitary waste from boats are provided at both existing marinas.

f. To protect the backcountry resource and maintain the quality of the backcountry visitor experience, limits are imposed on the number of people, parties, and stock in the backcountry and on the total number of days spent by one party in any one site or during one season.

g. For safety and resource protection purposes, visitor-use permits are required for fishing, boating, and backcountry use.

h. To prevent overcrowding and to protect the park resource, auto campgrounds are restricted to one party per designated site. When all campsites are full, visitors are directed to concession overnight facilities or to other accommodations outside the park.

## B. RESOURCES

### Geology

The commanding features that initially attracted interest and led to the reservation of Yellowstone as a national park were geological--the geothermal phenomena, the colorful Grand Canyon of the Yellowstone River, and the size and elevation of Yellowstone Lake.

The park's geological history includes formations from the most ancient to the more recent. Precambrian granite, schist, and gneiss--all having an age of 2 to 3 billion years--are exposed in the northern section of the park. The long Paleozoic era is represented by several formations exposed in the Gallatin Range while records of the Mesozoic are found on Yellowstone's Mt. Everts. Volcanism during the early Tertiary--50 million years ago--produced the Absaroka Range on the park's eastern boundary. Also, during this time, periodic ash flows buried successive forests that originally flourished on Specimen Ridge. Here, standing fossil trees testify to this ancient chain of events. Volcanic activity during the past 2 million years emplaced the rhyolites and basalts that form the

park plateaus, and the more recent flows--interleaved with glacial deposits of Pleistocene age--may be used to date some of the glacial advances and retreats. Evidence indicating that glaciers covered the region three or four times in the last 300-thousand years exists. The end of the last glaciation, less than 11-thousand years ago, is a significant time marker for life in the park--the plants and animals that invaded the territory. Thus, the vegetation complex in the park today began its development in the not-so-distant past.

### Flora

A cold-climate, coniferous forest composed of species that reseeded from adjacent regions became established which accounts for the park's limited number of tree species. One of these, the lodgepole pine, is abundant on rhyolitic soils comprising about 80 percent of the forest that covers 80 percent of the park. However, at higher elevations in the stream valleys and in glacial kettles on the plateaus, Englemann spruce on acidic soils and subalpine fir are present. The white-bark pine, often growing near the spruce and fir, also reproduces in many places under the lodgepole pine. Douglas fir tends to grow only at lower elevations as does the aspen--the one significant broad-leaved species. Limber pine and Rocky Mountain juniper occupy sites detached from the regular forest in the lower elevations.

The nonforested areas may be placed in one of the five types: wetland meadow, sagebrush/grassland, subalpine/alpine meadow, thermal area, or talus. The alpine and subalpine meadows seem to have much in common perhaps because elements of true alpine vegetation were eliminated from the higher peaks during the warm dry altithermal period about 5-thousand years ago.

Climate has been dramatically important in another way. Lightning and dry conditions exposed the vegetation of the park to natural fire subjecting much of the high forested plateaus to burning every 200 to 400 years or so. Regular firing on this cycle in the postglacial period may explain the sustained presence of lodgepole pine and the limited distribution of other less fire-resistant species which dominate when fire is lacking. More frequent wildfires in the grasslands at lower elevations undoubtedly have contributed to maintaining the open character of the northern part of the park.

The vegetation having adapted itself to the particular geological conditions supplied the base upon which a spectacular assemblage of animal species became established. This fauna interacting with and integral to the surrounding biotic communities completed the complex web of life that exemplifies the high Rockies.

### Fauna

Obtaining their food from the producing level of the food chain are land rodents, such as, mice, pocket gophers, marmots, squirrels, and porcupines. The muskrat and beaver are rodents that occupy the aquatic environment and feed upon the aquatic plants to some extent; however, the beaver's primary use of its water environment is for a home, while it obtains much of its food from dry land.

Larger plant eaters include such ungulates as the bison, moose, elk, mule deer, pronghorn antelope, and bighorn sheep. They are among the park's greatest attractions. The elk are also particularly important in management programs because their large numbers create a significant impact upon park vegetation and because they are migratory. Most of the herds range outside the park, which places them under the management jurisdiction of other agencies. One resident elk herd is naturally regulated--about 1,000 animals--and is found in the upper Madison drainage. The northern and Gallatin herds, which move partially into Montana in the winter, and the southern herd, that descends into Jackson Hole, have also been hunted under regulations in the bordering States.

Dividing his time between the role of predator and vegetarian, the Yellowstone black bear has long supplemented his natural summer diet of fruit and rodents with roadside handouts. In recent years, vigorous efforts to convert the feeding habits of roadside black bears back to their native plant and animal foods have been noticeably successful. The grizzly bear ranges throughout the park, with greater concentrations in the Gallatin Range and throughout the Central and Mirror Plateaus. This animal is of sufficient size and power to kill any other animal in the park. However, its omnivorous habits and limited numbers minimize its role in effectively regulating animal populations. Indeed, man's activities have so altered the inherent feeding habits of both grizzly and

black bears that their balancing effect as meat eaters is less than would normally be expected. In the past, open garbage dumps attracted bears from miles away changing their normal ranging patterns as well as their food habits. From the dumps, it was only a short step to garbage cans and campsites; however, this trend has been reversed dramatically by management action in recent years.

Preying on land-based animals is an assembly of predators ranging from the insect-eating bats to the large carnivores. Some of the most effective predators, such as the mountain lion and gray wolf, have been all but eliminated through man's early efforts to protect the ungulate populations. Others, such as the coyote, red fox, marten, and weasel, can do little to fill the gap left by the elimination of these larger carnivores. However, they add to the exciting diversity of the park's fauna as do the winged predators, such as the golden eagle and various species of hawks and owls.

An important element in the Yellowstone wildlife scene is the mammals and birds dependent upon the aquatic environment for their prey. The river otter, extirpated from much of its range, is still found in most of the major rivers and lakes in the park. An important avian predator is the white pelican, whose critical nesting grounds are located on the Molly Islands in Yellowstone Lake. During the summer, this huge fish eater can be seen fishing the lakes, sloughs, and quiet backwaters throughout the upper Yellowstone Valley. Another equally important fish-eating bird is the osprey. Cormorants, sandhill cranes, great blue herons, and kingfishers also depend on fish for a major portion of their diet.

Other important and conspicuous bird species include several ducks, the Canada goose, and the trumpeter swan. Once threatened with extinction, the trumpeter swan has been able to strengthen its numbers in Yellowstone. Although present in the park, the bald eagle is apparently affected by the accumulation of pesticides in the natural environment; however, its population appears to be stable at present. The eagle and other scavengers such as the raven, magpie, and gull occupy the last niche in the food chain before invertebrates decay and complete the recycling process.

Amphibians and reptiles have a limited representation. The sagebrush lizard can be found in remnant

populations near thermal areas--a refugee from the times of warmer climate about 5,000 years ago. The prairie rattlesnake, three nonpoisonous snakes, and one salamander are now restricted to the relatively warm, low elevations near Yellowstone's northern boundary. The one toad present is nonvocal, but two species of frogs make strong contributions to the way the park is heard.

An array of other less visible animal life is present including protozoans, parasitic worms, and a host of insects. It is probably true here--as elsewhere in the world--that the number of insect species alone is equal to all the species of plants and animals put together. Their impact is most evident in defoliation of forest trees. In the past, epidemic outbreaks of forest defoliating insects, such as western budworm or mountain pine beetle, would have been countered with pesticide control attempts, but today their role is recognized as natural to the park ecosystem.

Yellowstone's fishery is comprised of both native and introduced fish and holds a high degree of interest for the visitor as a recreational resource--the angling of wild fish in a wilderness environment. Of greater importance, the fish are an essential part of the diet of several species of birds and mammals.

Today, the tradition of catching and keeping fish is being questioned in light of the importance of sustaining the integrity of the natural ecosystem. Carefully regulated fishing is permitted, but the fishery management objective here is vastly different from that in areas outside the national park. The principal objective is the preservation of native fish populations and associated aquatic life in a natural environment. This includes the regulation of human fishing so as not to reduce the essential food for dependent wildlife, disrupt bird nesting areas, or disturb other plant and animal life in areas where those animals can be seen by a large number of park visitors.

A secondary objective is the maintenance of quality angling for wild fish by effective catch and release and creel limit policies, thereby, maintaining fish populations that will be readily replenished by natural reproduction.

While the faunal ecosystem within the park is still relatively intact, man's sometimes well-intentioned

efforts have caused serious alternations. Larger predators have been depleted in number, migration patterns have been disrupted, and the distribution of some large ungulates has been changed. Feeding habits have been seriously altered by the presence of unnatural food sources, and the aquatic community has been completely changed by the introduction of exotic fish that now dominate many portions of the park's rivers. Thus, in future years management efforts must be twofold: (1) to restore the basic processes and relationships that have been upset by the activities of modern humans, and (2) to encourage the maintenance of natural, environmentally regulated ecosystems.

Although Yellowstone National Park has been designated a natural area rather than a recreational or historical one, this does not imply that the two latter associations are not present. Recreation for its own sake has been traditional. Hiking, horseback riding, cross-country skiing, and fishing are practiced intensely. Powerboating has become established on Yellowstone and Lewis Lakes. A regulation allowing only hand-propelled craft has, however, been established for all other lakes. To protect natural conditions, no boats are allowed on the rivers of Yellowstone National Park. However, this is currently being reviewed with the real potential of opening some waters to hand-propelled boating.

The human history of the park is fascinating and diverse. It begins with prehistoric use of the high plateaus by various Indian groups and continues with the area's use by trappers and adventurers. Reports of the geologic wonders and concentrations of wildlife acted as a magnet for exploration parties, whose excitement over Yellowstone's natural phenomena led to its establishment as the world's first national park. The development and administration of Yellowstone served as a model for other nations, and the park philosophy that evolved here has become increasingly significant in the history of society.

#### C. LAND USES AND TRENDS

Together, Yellowstone National Park and Grand Teton National Park, immediately to the south, comprise the core of a vast upland wilderness that is held almost exclusively within Federal ownership. Five national forests and parts of three others define its parameters. Centered primarily within northwestern

Wyoming astride the Continental Divide, it extends into Montana on the north and Idaho on the west. This 27,000-square-mile region, recently referred to as the "Greater Yellowstone Ecosystem," is slightly larger than the combined acreage of Vermont, New Hampshire, Massachusetts, and Rhode Island. This region has also recently been distinguished as the largest, virtually-intact ecosystem in the world's temperate zone.

The upland forests, the abundant wildlife, the moderately wet climate, and the streams and lakes provide ideal conditions for a wide variety of both summer and winter resource-oriented recreational activity. Nestled within the region's core are Yellowstone and Grand Teton National Parks--each renowned for its own distinctive scenic attractions. The five national forests, administered by three separate regional offices, contain over 2 million acres of legislated wilderness and over 2 million acres of multiple-use land surrounding the majority of the park.

Today, recreation surpasses the agricultural and livestock industries as the economic base of the region. Visitors to Yellowstone and Grand Teton National Parks contributed an estimated \$261,140,000 to the tri-State region in 1976 (Greater Yellowstone Cooperative Regional Transportation Study). Although summer recreation has been the traditional pattern, the increasing popularity of winter activities could eventually lead to a stable year-round tourist economy.

Realistically, however, if recreation is to evolve into a permanent economic asset without damaging the environment, regional and local planning and subsequent zoning must be established and vigorously enforced in concert with cohesive, ecosystem management by Federal agencies. Positive examples in this direction are the establishment of the Interagency Grizzly Bear Committee, the Greater Yellowstone Coalition, the Yellowstone-Teton Travel Association, the Greater Yellowstone Bald Eagle Working Group, and the Tri-State Trumpeter Swan Group.

Furthermore, limited developable land, critical wildlife ranges, and the region's water rights adjudication suggest that guidelines and zoning be established for the agricultural grazing, lumbering, mining, geothermal development, oil and gas activities, and other activities just beyond Yellowstone's borders.

The nature of Yellowstone National Park as a large natural reserve has influences that are national and even international in aspect, particularly, since it is the first national park of the world. For example, interest in the park for basic research is spread well beyond the local region. The Sierra Club, the National Parks and Conservation Association, national snowmobile clubs, the Association of National Park Concessioners, and the others are particularly interested in the management of Yellowstone National Park. National societal trends affect the park in many ways--for example, the trend toward use of recreational vehicles over the past 10 years, the trend of visitors staying longer in the Yellowstone area, the increase in tour-group visitors and bicyclists, backcountry use, and more visits in the "shoulder season" and winter, as well as a marked increase in foreign visitors.

Yellowstone National Park and the greater Yellowstone ecosystem are influenced by many Federal and State laws and policies as administered by various bureaus. Examples of these are the Clean Air Act, the Endangered Species Act, the Federal Water Pollution Control Act, State Water Rights Policies, timber cutting, mining, wilderness and wildfire policies in the surrounding national forests, and land and wildlife management policies of the States.

Additionally, the National Park Service in Yellowstone places influences on the surrounding region which include administrative restraints affecting park visitor services, control of concession operations in the park that affect accommodations in public facilities in nearby communities, wildlife protection within the park that affects outside hunting, and road closures that change the region's road circulation in the winter.

State, county, and municipal government programs and policies influence the Yellowstone region. Countywide zoning regulates development of facilities outside the park. State travel commissions promote visitation to the region. State wildlife management policies affect the park. The park maintains the Beartooth Highway which is within the States of Wyoming and Montana. The State of Montana maintains a portion of the Gallatin Highway within Yellowstone National Park. A cooperative agreement for solid-waste disposal has been consummated with Park County and West Yellowstone, Montana.

Private enterprise within the Yellowstone region is affected by the park, and the park is affected by private enterprise. Dude ranches and outfitters that operate adjacent to the park are affected by park backcountry management policies. Winter visitation to the region is affected by major ski area development at Big Sky and the proposed Ski Yellowstone development at West Yellowstone. Private subdivision development adjacent to the park can have a great effect on the park through establishing additional permanent populations near the park and by taking up wildlife range. Private campgrounds outside the park are affected by what is done within the park about totalling the number of campsites and the demand for outside campsites. Local business is generally affected by the level of concession operations within the park not only for accommodations but also for gas stations, wrecker services, gift shops, and restaurants.

Visitor promotion by surrounding communities brings more visitors to the park. A prime example is snowmobiling activity at West Yellowstone and the winter operation at Mammoth Hot Springs. Cross-country skiing within the park is bringing more people to local communities in the wintertime. The communities are affected by being hemmed in by the park or forest lands that can severely limit growth.

For the most part, the park's roads were developed in the railroad-stagecoach era by the Army. The park's road system is now overburdened due to the phenomenal growth of automobile travel. Auto travel is now over 700,000 vehicles per year with further increases predicted. The end result is congestion and delay and severe deterioration--all detracting from the visitor's experience.

A primary, year-round road system circles the park at a distance of 50 to 100 miles from the park boundary. Summer access is possible via the north, northeast, east, south, and west entrances; but, in winter, conventional vehicles may enter only via the north entrance. The road between the north entrance and Cooke City, Montana, is plowed in the winter; but, other park roads are open to oversnow vehicle traffic only.

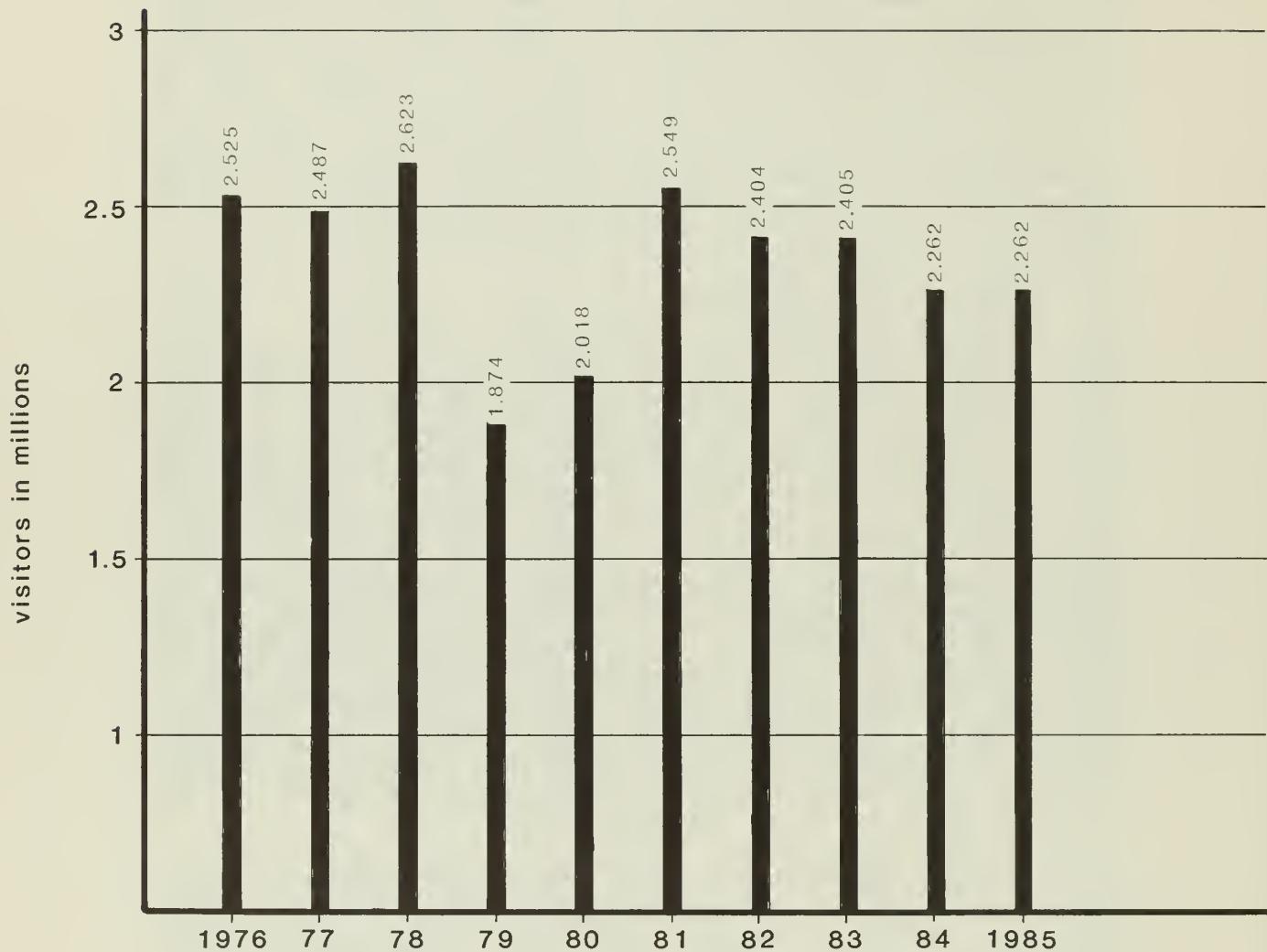
The south and west gates each handle about 30 percent of the summer travel with the east, north, and northeast--in descending order--carrying the remainder. Grand Teton National Park has a strong influence on Yellowstone travel; because the two parks are so closely related, they are often associated by the visitor as the Grand Teton-Yellowstone area. The heavy proportion of travel through the south, east, and west gates indicates that a large percentage of Grand Teton travelers visit Yellowstone in the same trip.

#### D. VISITOR-USE ANALYSIS

The peak visitor season of the park is mid-June through the end of August. During this period, all visitor facilities are open. Canyon is the last area to open and the first to close. The Old Faithful area has the longest seasonal-visitor facility activity beginning the first of May and running until mid-October. Visitation during July and August averages 20,500 per day with peak days exceeding 23,000. Shoulder season (before and after the peak season) visitation is slowly increasing as visitors find that the "off-season" is an ideal time to see the park. During the peak season, all facilities are essentially full. Therefore, increase in visitation in the future must be managed by encouraging visitation in the shoulder and winter seasons, and those visitors must be adequately served through a diverse range of visitor services while continuing to protect the resource.

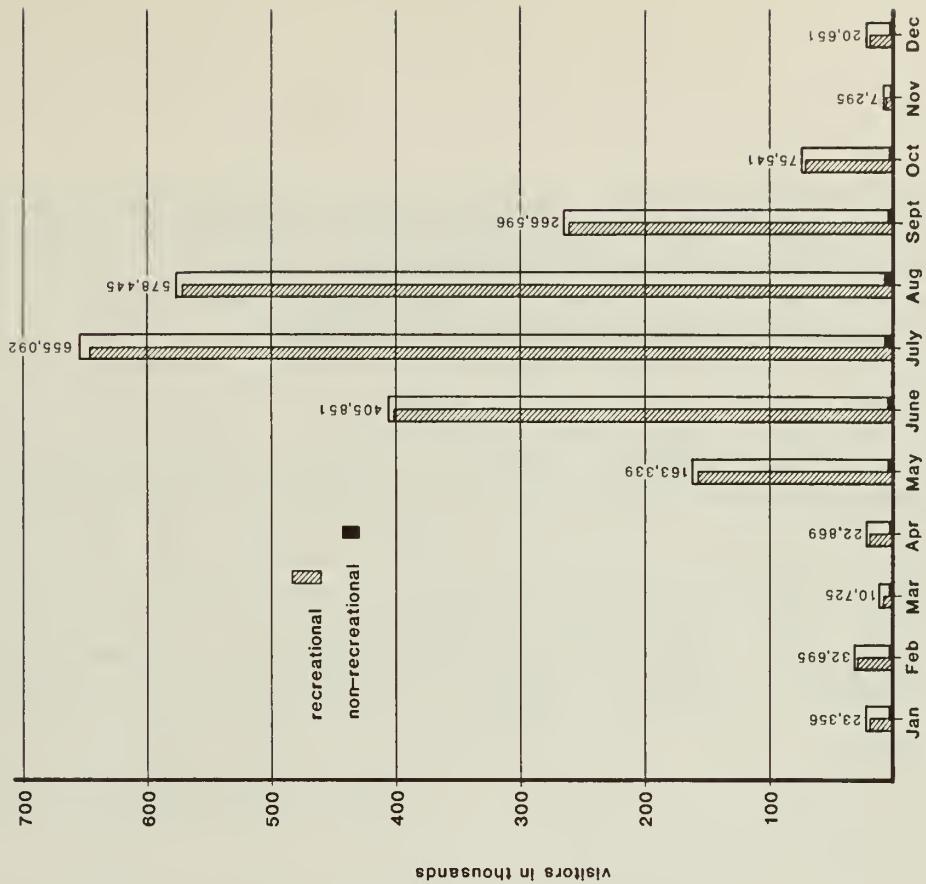
Winter visitation has steadily increased from year to year since 1966. A major concessioner/National Park Service effort to make facilities in Mammoth more available to the visitor began in 1982. Visitation during the mid-December to mid-March winter season will continue to increase as visitors realize the wildlife viewing and recreational opportunities available--even after the concessioner has stopped marketing the winter experience. The park is developing a winter-use plan to inform management of the increasing use and to make more of the park available without damaging the resource as well as provide the appropriate level of services and of visitor experience.

Examination of the 1982 travel survey shows that almost 6 percent of the visitors surveyed were from foreign countries. However, this percentage under represents the amount of foreign visitation since many could not participate because of language barriers. It is

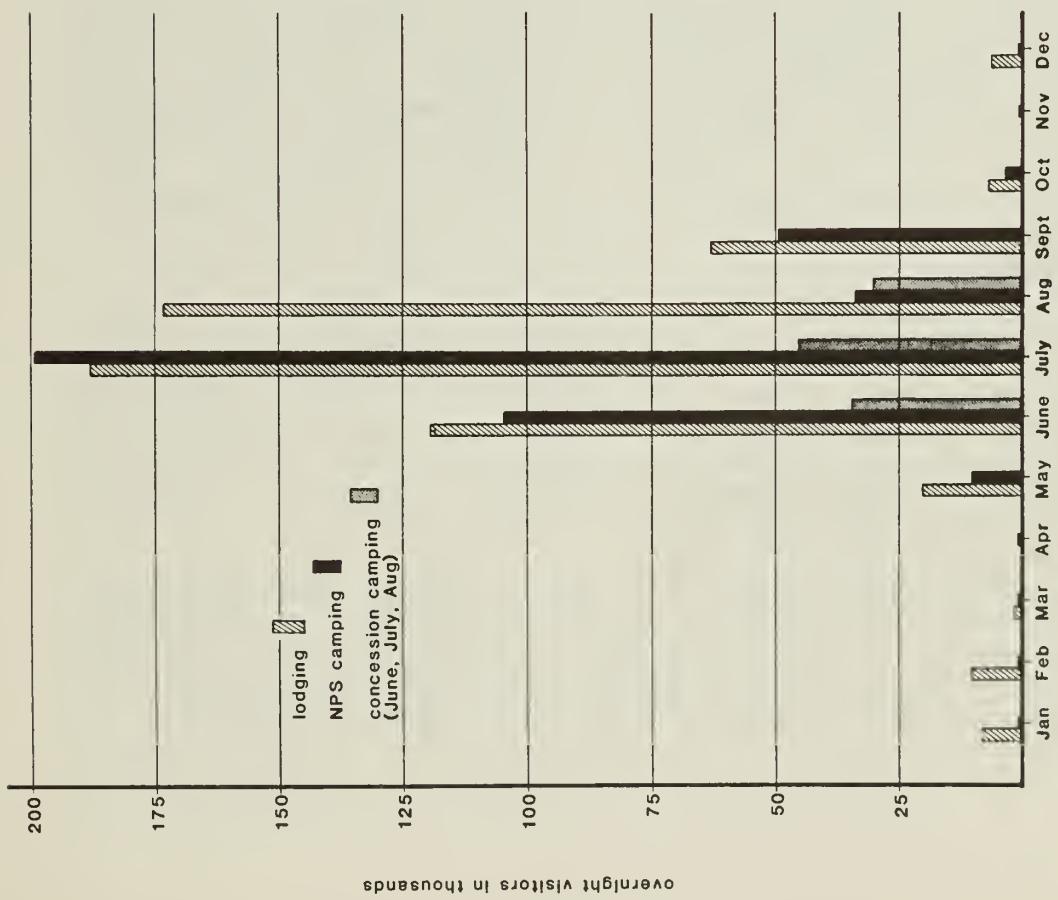


Annual Visitation  
Yellowstone National Park

Monthly Visitation – 1985  
Yellowstone National Park



Overnight Stays – 1985  
Yellowstone National Park



projected that foreign visitation will continue to grow at a higher rate than domestic visitation and was estimated in 1985 to be 10 percent.

#### E. FACILITIES AND EQUIPMENT ANALYSIS

##### Roads

Approximately 539-equivalent miles (22-feet wide, 1-mile long) of road are in Yellowstone including 43 miles that are maintained as a part of the Park Approach Road Act. There are 410 miles that are paved and 73 that are gravel or dirt or that are surface treated with a light oil covering. There are 56-equivalent miles of parking areas and pullouts that are spread throughout the park. Approximately 370-road miles plus the parking areas and pullouts are available for public use. The remaining miles are used for administrative purposes and housing areas. Approximately 200 miles are groomed for oversnow use during the winter.

The roads are generally in a deteriorated condition due to the fact that they have gradually increased in use since horse and wagon days without major rehabilitation of the road bed. Widths are not adequate for modern travel and subsurface conditions make many of the roads rough during spring breakup. The 60 road bridges need cyclic (normally scheduled) maintenance to be brought up to acceptable standards. Many bridges have excess asphalt on them, exhibit spalling concrete, have clogged drainages, and need to be cleaned and painted.

##### BUILDINGS

Yellowstone has 1,433 buildings exclusive of house trailers with a total in excess of 3.5-million square feet of floor area. Of these buildings, 850 are operated and maintained by TW Services, Inc. (TWS). In addition to the fixed buildings, there are 114 protable structures (house trailers, movable dorms) with 45,054 square feet of floor area.

There are approximately 1,130 buildings that are over 50 years old and that are treated as historic structures. Of those, 405 buildings are used for quarters, 810 are used principally by the public, and 210 are used primarily for administrative purposes.

Many of the buildings are in a semi-deteriorated condition although many improvements, such as bringing wiring up to code, kitchen renovation, and other fire safety and code improvements have been accomplished since 1980 as well as limited historic space rehabilitation. Many interiors, roofs, and structural deficiencies still remain. Historic interiors and exteriors need considerable work to successfully stabilize the historic buildings. A substantial cyclic maintenance program is needed to prevent the further deterioration of buildings.

Housing is inadequate for seasonal employees throughout the park and for permanent employees at most of the outlying areas. Substantial development is needed at Grant Village and Old Faithful for permanent and seasonal employees.

#### TRAILS AND BOUNDARIES

Approximately 1,151 miles of backcountry trails, 60 mile of frontcountry trails, and 6 miles of boardwalks around thermal features are maintained.

The boardwalks are generally in good shape because they have had substantial work on them since 1982. Many are not handicapped accessible. The frontcountry trails are in need of substantial cyclic maintenance. The backcountry trails need work to control erosion and to protect resources.

The park boundary of 291 miles has only 100 miles that is adequately marked mainly because of geographical features. The remaining 191 miles range from partially to totally inadequate marking.

#### Utility Systems

Yellowstone operates 23 water and 16 wastewater systems. The water systems range from wells and springs to four chemical coagulation/filteration plants. Total capacity is approximately 4.3 million gallons per day. All water is obtained from subsurface sources except for the four filtration plants that use surface water as the source. A total of 228-million gallons of water is treated each year. The 16 wastewater systems consist of septic tanks, trickling filters, aerated lagoons, and activated sludge systems. Five systems have capacities exceeding 200,000 gallons per day. The total capacity parkwide is approximately 3.9-million gallons per day.

The water and wastewater systems are generally in good shape as most of them have been reconstructed since 1972. Madison is the only wastewater plant needing renovation; it is scheduled for 1988 or 1989.

All solid waste generated in the park is collected and taken to West Yellowstone and Livingston, Montana, for disposal. Approximately 2,500 tons per year are generated and disposed of in this manner.

The park radio system has recently been replaced and is currently adequate although cyclic maintenance is needed.

Electricity is provided for most of the park by the Montanan Power Company although three other utility companies provide power to four of the entrances. The power lines are mostly overhead and the park is subject to outages during winds and/or heavy snow. The Montana Power Company maintains standby generators at four areas in the park. Yellowstone National Park provides power continuously to four areas and provides emergency standby power to small areas and lift stations at 15 other locations.

#### Campgrounds and Campsites

Yellowstone operates 12 auto campgrounds with 2,226 sites throughout the summer season (in addition a 353-site RV park at Fishing Bridge is operated by the concessioner). The Mammoth Campground (87 sites) is open all year. Another 320 backcountry campsites are also maintained throughout the park. The campgrounds are in need of major site rehabilitation, and the facilities that are quickly deteriorating are picnic tables, fire grates, bumper logs, and comfort stations. The associated amphitheaters need substantial work on seating and audiovisual systems.

#### Equipment

Yellowstone owns and operates a fleet of 466 pieces of mobile equipment in addition to the General Services Administration (GSA) leased vehicles for the peak season. The park's fleet consists of 38 cars, 90 pickups, 10 boats, 66 snowmobiles, and 262 pieces of heavy or specialized equipment. Aside from the boats and snowmobiles, which are in good condition, the fleet

is in fair to poor condition. The equipment replacement fund is inadequate to replace equipment on a timely basis causing increases in maintenance costs and a decrease in efficiency. The detailed equipment inventory is kept at the park.

**F. STATUS OF PLANNING**

<u>Name of Plan/Study</u>	<u>Preparer</u>	<u>Date Approved</u>	<u>Comment on Adequacy</u>	<u>Repository</u>
<b><u>GENERAL</u></b>				
Master Plan/Environmental Statement	RMRO/Park	6/11/74	Current	RMRO/Park/DSC
Statement for Management	Park	4/18/80	Updated	RMRO/Park
Traffic Safety Study	DSC	In progress		
Road Rehabilitation Study	FHWA	In draft		
Greater Yellowstone Regional Transportation Study	DSC	12/80	Current	RMRO/Park/DSC
Grant Village Development Concept Plan	DSC	2/8/82	Current	RMRO/Park/DSC
Greater Yellowstone Aggregation Plan	Targhee National Forest	In progress		
Old Faithful Development Concept Plan	DSC	1/10/85	Current	RMRO/Park/DSC
Fishing Bridge Development Concept Plan	DSC/Park/RMRO	In progress		
Lake/Bridge Bay Development Concept Plan	DSC/Park/RMRO	In progress		
Land Protection Plan	RMRO/Park		Current	RMRO/Park

<u>Name of Plan/Study</u>	<u>Preparer</u>	<u>Date Approved</u>	<u>Comment on Adequacy</u>	<u>Repository</u>
<u>INTERPRETATION</u>				
Interpretive Prospectus	HFC/RMRO/Park	Final Draft 4/86	RMRO/Park/ HFC	
Wayside Exhibit	HFC/RMRO/Park	Underway	RMRO/Park/ HFC	
State for Interpretation	Park	Annually	Current	RMRO/Park
<u>NATURAL RESOURCES MANAGEMENT</u>				
Natural Resource Plan	Park	5/5/83	Current	RMRO/Park
Landfill/Dump Plan	Park	In progress		CRO
River Use Management Plan	Park	In progress		CRO
Wilderness Recommendation	RMRO/Park	8/72	Current	RMRO/Park
Final Environmental Impact Statement/Grizzly Bear Management Program	Park	10/28/82	Current	RMRO/Park
Winter Use Plan	Park	In progress		
Backcountry Management Plan	CRO	Draft		
Water Resources Plan	Park/Water Resources Division, Ft. Collins	Draft		
<u>VISITOR PROTECTION/SAFETY</u>				
Structure Fire Plans (Districts)	Structural Fire Chief Rangers	1982	Needs Revision	Each Area Mammoth Fire Marshal

<u>Name of Plan/Study</u>	<u>Preparer</u>	<u>Date Approved</u>	<u>Comment on Adequacy</u>	<u>Repository</u>
Structure Fire Plan (Park)	Structural Fire Chief	1/1/85	Draft	Fire Marshal
Helicopter Use Plan	Fire Cache	1974	Limited Scope	Fire Cache Superceded by Training Manuals and Use Guides
Natural Fire Plan	CRO	Being Revised		CRO
West Yellowstone Fire Cache	Gallatin	1982		Good
Interagency Fire Coordination Center 5 year Operating Plan				Gallatin National Forest
Search and Rescue Plan	CRO		Under revision to be Completed by 9/86	

#### CULTURAL RESOURCES MANAGEMENT

Cultural Resources Management Plan	Park	Underway	
List of Classified Structures	Historical/ Research Association	5/10/84 Contract Completed	RMRO/Park
Nomination of Structures to the National Registry	Park/RMRO	Ongoing	RMRO/Park
Historic Structures Report	RMRO/DSC		
Old Faithful Lake Hotel Lake Lodge Old Faithful Lodge Norris Soldier Station	1/82 1969		

<u>Name of Plan/Study</u>	<u>Preparer</u>	<u>Date Approved</u>	<u>Comment on Adequacy</u>	<u>Repository</u>
Collection Management Plan	RMRO	1976	Under-going Revision	RMRO/Park
Cultural Sites Inventory	MWAC	1984	Ongoing	RMRO/Park
History of Winter Use in Yellowstone National Park	Graduate Thesis		Ongoing	RMRO/Park University of Wyoming
Study of Development of Interpretation in Yellowstone National Park	Graduate Thesis		Ongoing	RMRO/Park University of Wyoming

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RMRO - Rocky Mountain Regional Office  
 DSC - Denver Service Center  
 FHWA - Federal Highway Administration  
 CRO - Chief Ranger's Office, Yellowstone National Park

## G. EXISTING MANAGEMENT ZONING

The 2,221,722 acres of land in Yellowstone National Park are defined in three general zones--Natural Zone, Historic Zone, Park Development Zone. Quantification of acreage within these zones has not been accomplished. The Natural Zone is further divided into subzones defining a Wilderness Subzone and Natural Environmental Subzone. These zones and subzones are described as follows:

### 1. Natural Zone

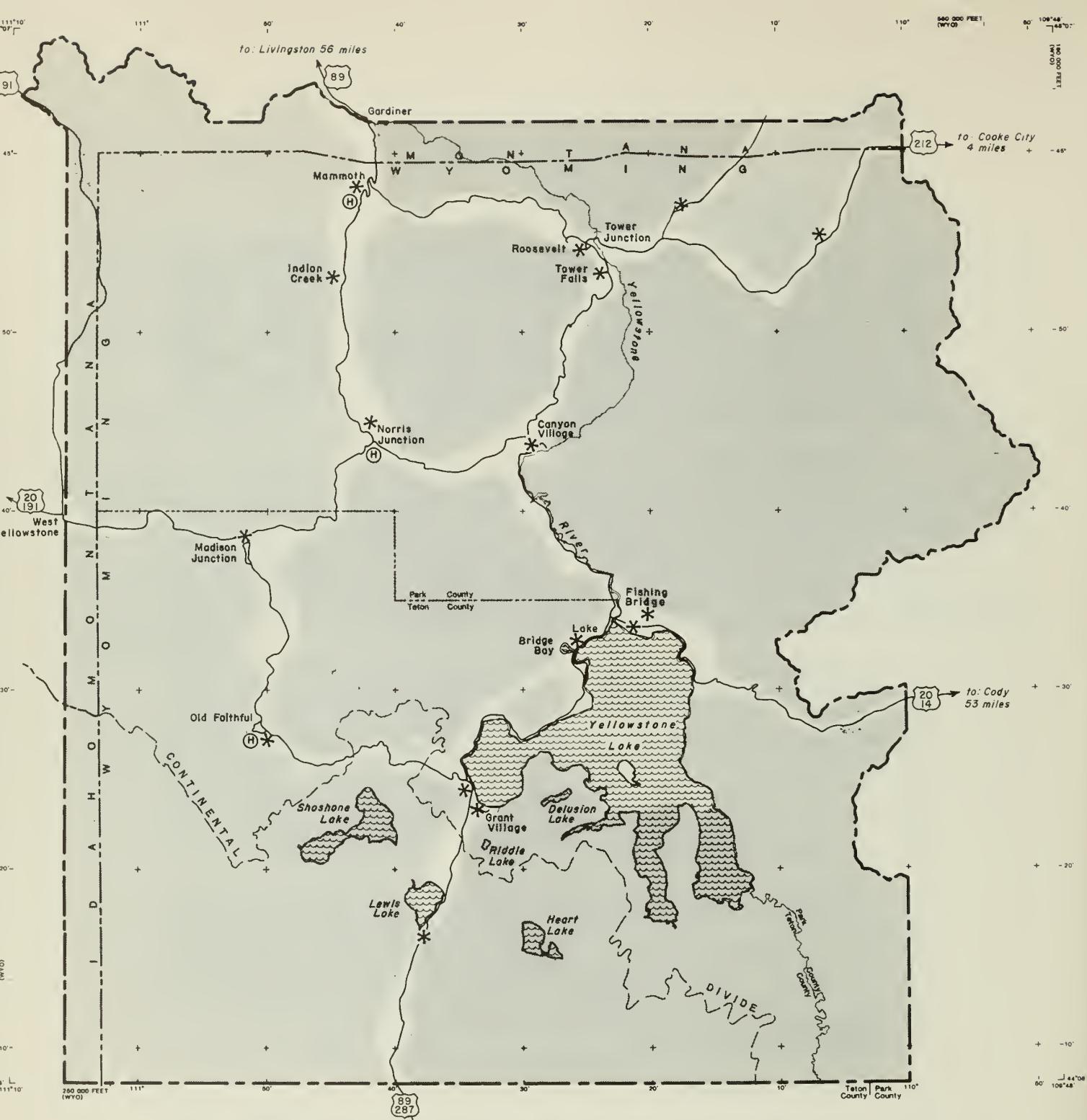
Management of areas within this zone emphasizes the conservation of natural resources and processes and accommodates uses that are compatible with these resources and processes. Approximately 99 percent of the park lands are within this zone. Subzones within the Natural Zone are explained as follows:

a. Wilderness Subzone. The majority of park lands are further classified as wilderness subzone to reflect the park's wilderness recommendation of 1972. The recommendation includes 2,016,181 acres of the park to be included in the National Wilderness Preservation System. There are 10 units involved; they are separated by the park road system. (See Wilderness Plan - Yellowstone National Park Drawing No. 101-20,005A, January 1978 - Denver Service Center.)

b. Natural Environmental Subzone. Those lands maintained in their natural condition that serve as buffers between roads or developed areas and wilderness study area are in the Natural Environment Subzone. Included in this category is the northern portion of Yellowstone Lake exclusive of its southeast, south, and Flat Mountain arms.

### 2. Historic Zone

The purpose of this zone is to preserve, protect, and interpret cultural resources and their settings. Less than 1 percent of park lands are included in the Historic Zone. Included in this category are the Mammoth/Fort Yellowstone, Roosevelt, North Entrance, Lake, Fishing Bridge, and Old Faithful Historic Districts; Madison and Norris Museums; Norris Soldier Station; Northeast Entrance Station; and Bechler River Ranger Station.



## Legend

— — — park boundary  
 — road  
 [ ] natural zone  
 [ ] wilderness subzone  
 \* development zone (including roads)  
 (H) historic zone



A scale bar with two sets of markings. The top set, labeled 'MILES', has major tick marks at 0, 2, 4, 6, 8, and 10. The bottom set, labeled 'KILOMETERS', has major tick marks at 0, 2, 4, 6, 8, and 10. The scale bar is 10 units long, with each unit divided into five smaller segments.

# Existing Management Zoning Map Yellowstone National Park

United States Department of the Interior - National Park Service

### 3. Park Development Zone

Management emphasis on lands within this zone is to provide and maintain park development to serve park management and visitor needs. Lands in this zone include the primary developed areas in the park. They comprise less than 1 percent of all park lands.

### H. CONCESSION OPERATIONS

There are three major concession contracts in Yellowstone, one concessions permit, and a joint venture agreement. Approximately 1,000 buildings are assigned to or owned by concessioners.

The major concessioners are TW Services, Inc., providing overnight accommodations, food/beverage service, gift shops, transportation services, horse and boat operations, and public showers and laundries; Hamilton Stores, Inc., provides limited food services, general stores, and souvenir sales; West Park Hospital provides the park's medical services including a full-service hospital, ambulance services, sale of prescription drugs, and two clinic operations; Yellowstone Park Service Stations, which operates under a joint venture agreement between Hamilton Stores and TW Services, provides gasoline and wrecker and repair services; Triangle Firewood Company is authorized, under a concession-use permit, to provide campground firewood and kindling.

TW Services has a 5-year contract expiring in 1986. This concessioner has a preferential right of renewal based on satisfactory performance. The concept of this contract is different from other concession contracts in that no franchise or building-use fees are required. Instead, the concessioner is required to invest 22 percent in a Capital Repair and Maintenance Program. The concessioner is also required to invest, before taxes, profits exceeding 5 percent of the previous year's gross receipts. TW Services does not have possessory interest (with the exception of Grant Village) in the buildings assigned to them by contract.

Hamilton Stores has a standard-language contract for a 30-year term, expiring in 1999. This concessioner also has a preferential right of renewal. They are required to pay a 2-1/2-percent franchise fee and building-use

fees covering their operations in Yellowstone. Hamilton Stores has a building and improvement program originally scheduled for completion in 1980. Most of this program was extended or postponed pending National Park Service decisions on park development concept planning.

West Park Hospital was authorized under a standard-language contract for a term of 6 years that expired in 1985. The contract was extended for 1 year to continue operations through 1986. They have preferential right of renewal. Franchise fees have been waived because providing medical services in Yellowstone has been economically marginal.

Yellowstone Park Service Stations are authorized under a joint-venture agreement between Hamilton Stores and TW Service with 50-50 ownership between the National Park Service and Hamilton Stores. TW Services was assigned the 50-percent National Park Service share of operating profits.

Triangle Firewood Company is authorized to sell campground fuel under a concessions permit that expires in 1990. This permittee has met the requirements of his permit and is entitled to a preferential right of renewal.

A study of Yellowstone's concession contracts is underway. It deals with such things as the future of Yellowstone Park Service Stations, Hamilton Stores' franchise fees and long-term contract, and the services or its successor's future contract on the Capital Improvement Program, term, and so forth.

The National Park Service and TW Services have initiated a new concept in contracts in national parks and have been successful in upgrading most of the major facilities in Yellowstone. Millions of dollars have been spent since 1979 including \$19.9 million to purchase General Host's facilities and \$46.1 million under packages 619 and 620 (through fiscal year 1986) used primarily for health, life-safety improvement, and kitchen rehabilitation. The concessioner has advanced over \$7 million to the government towards the development of Grant Village. The money is being paid back at 12-percent interest over a 10-year period. Major projects accomplished by the Capital Improvement Program were completely renovating the Mammoth Hotel dining room and fast-food operation; upgrading and standardizing many cabins throughout the park;

remodeling the Lake Hotel dining room, lobby, and gift shop; and other major improvements parkwide.

Future contract planning will continue to emphasize the concessioner improvement program with more detailed guidance for expenditure approval and administration. Yellowstone will continue to upgrade visitor facilities and will assure that cyclic maintenance adequately covers the need to maintain facilities at a satisfactory level. The park needs to continue planning future contracts beneficial to the National Park Service and to the park visitors.

#### IV. ISSUES

##### NORTHERN ROCKY MOUNTAIN WOLF RECOVERY

Gray wolves, extirpated from Yellowstone about 1927, should be restored to re-establish the park's natural ecosystem. The experimental restoration of wolves to Yellowstone would provide a needed empirical test of their effects on elk and other prey species and would partially compensate for the influence of modern man on ecosystem processes.

The Northern Rocky Mountain Wolf Recovery Team produced a recovery plan approved May 28, 1980, by the Acting Director, U.S. Fish and Wildlife Service. The plan applies to Canis lupus irremotus. The plan will be revised periodically. Yellowstone National Park is one of three potential recovery sites.

##### NORTHERN YELLOWSTONE ELK HERD

The northern Yellowstone herd winters on the Yellowstone River drainage within the park as well as adjacent to the northern boundary of the park in the vicinity of Gardiner, Montana. This herd, counted at just over 16,000 in January 1985, is the largest in the world. Since these elk often concentrate in areas visible to motorists during the winter months, they provide very important viewing opportunities for visitors. They are also now sufficiently abundant to be commonly observed at some roadside locations throughout the rest of the year although most of the herd summers in more remote areas. Reliance upon natural mortality (chiefly winterkill) is the major regulatory mechanism for elk populations within the park.

Visitors are distressed by the sight of dead or malnourished elk and regard the loss as wasteful without recognizing the critical role elk play as carrion and prey in maintaining grizzly bears.

Certain groups allege the northern range is severely overgrazed and call for herd reductions even though decades of research fail to document retrogressive plant succession caused by ungulate grazing.

Fishing organizations contend that the Northern Yellowstone elk herd is causing excessive erosion in the Yellowstone River. (A study is underway to document the sources of turbidity in the river.)

#### PEREGRINE FALCONS

The peregrine falcon once thrived throughout the conterminous states of North America; however, an unprecedented and precipitous decline in most populations occurred during the early 1950's. This decline has been attributed to the adverse effects of chlorinated hydrocarbon pesticide (DDT and its residues) on the reproductive success of falcons. Historically, at least four or five documented active peregrine nesting sites were located in the park; the Yellowstone region supported a disproportionate number of peregrines compared to surrounding regions. Today, there is only one verified wild, active nesting site in Yellowstone National Park.

#### BISON MANAGEMENT

In the early history of Yellowstone, the bison were managed similar to that of a domestic cattle operation. This was done partially from the standpoint of preserving the bison and partially from a lack of biological data and knowledge of wildlife management. As knowledge increased, policies changed. Today, the management goal is to maintain a truly wild, free-ranging population controlled, to the extent possible, only by natural processes. The herd has grown to approximately 2,000 animals. This number has remained stable since the early 1980's, and there is evidence that the population is in equilibrium with the habitat.

With this increase in the population since the turn of the century, there has been a natural process of

movement and recolonization of historic habitat within the park and more recently outside Yellowstone. Thus, a portion of the northern herd has moved from the Lamar Valley into the range around Gardiner, Montana--an area which has not seen bison for over 100 years. This migration has caused concern among private landowners. The bison destroy property, forage on domestic cattle range, and have the theoretical potential of transmitting brucellosis to cattle.

The National Park Service initiated a boundary control program in the 1970's with the objective of containing the bison within the park. In 1985, the number of bison migrating out of the park increased significantly and the State of Montana used State game wardens to remove the animals. The State legislature reclassified the bison as a game animal and implemented a hunting season in the fall of 1985. Forty bison were removed by hunters during the winter of 1986.

In the meantime, the boundary control program has been revised. A 2 to 3 year experimental program aimed at containment of the bison, well within the boundaries of the park, will be implemented. Alternatives such as hazing, internal fencing, and aversive conditioning will be a part of the program. At the same time, the State will continue their hunting program to eliminate the animals that subvert the efforts and cross the boundary. The program will continue to be monitored, and the efforts that prove successful will be reinforced.

The National Park Service is currently in litigation with the Fund for Animals, Inc., over the bison management plan.

#### TRUMPETER SWANS

The trumpeter swan is one of the rarest of the North American waterfowl species. During the 1800's and early 1900's, commercial swan skin trade and habitat destruction reduced the number of trumpeters to a remnant of historic levels causing near extinction. Yellowstone National Park has always been a haven for trumpeters particularly during the nadir of their population history. As development and conflicting land uses destroy the productivity of nesting sites in other areas, Yellowstone National Park will become an increasingly important portion of the population's breeding range. Since 1964, a sizeable decline in

productivity has occurred in the region. Between 1976 and 1979, cygnet mortality in Yellowstone was estimated at 76 percent; most mortalities occurred in the first 6 weeks after hatching.

#### GRIZZLY BEARS

The fate of the grizzly bear in the Greater Yellowstone Ecosystem is a matter of grave concern and clearly the most controversial wildlife issue. Minimum population was estimated in 1983 at between 187 and 211. Loss of habitat, poaching, and management removals are considered to be the major threats to the grizzly bear's survival.

The major management activities during the past 25 years have included (1) the closure of the park's open-pit garbage dumps in the late 1960's and early 1970's, and (2) the subsequent management emphasis on increased law enforcement patrols to reduce illegal bear mortalities, restricted areas, minimum backcountry group size, strictly enforced regulations on food storage, bear-proof trash receptacles, and visitor education.

Because the bear ranges over 4- to 6-million acres in the Greater Yellowstone Ecosystem (Yellowstone National Park is 2.2-million acres), an Interagency Grizzly Bear Committee was formed in 1983. The committee was comprised of representatives of the Game and Fish Departments of the States of Idaho, Montana, Washington, and Wyoming; the U.S. Fish and Wildlife Service; the U.S. Forest Service; Bureau of Land Management; and the National Park Service. The formation of the committee is in direct response to the kind of ecosystem management required to assure recovery of the grizzly.

The Interagency Grizzly Bear Committee has accumulated considerable data on grizzly bear movements, habitat needs, biology, ecology, and adverse impacts of man's activities. Valid population estimates, particularly estimates of females of breeding age, remain exceptionally difficult to establish.

#### BACKCOUNTRY USE

Yellowstone's backcountry represents 90 percent of the park and consists of over a million acres of proposed wilderness. Current visitor-use trends in the backcountry show a decrease in the number of summer

backpackers with an increase in summer riding and pack-stock use and winter-backpacker use. To facilitate management of the backcountry, a draft backcountry management plan is presently being prepared. Special concerns include:

- Condition of trails and campsites
- Wood fire policy
- Increased backcountry stock use
- Commercial use licensing program for backcountry guiding, particularly commercial stock operations
- Backcountry campsite reservation system
- Data on day use of the backcountry
- Increased winter backcountry use
- Information on the park's backcountry users including their activities and needs.

#### HAZARD TREES

People have been killed by falling trees in Yellowstone National Park, and a dozen cases of serious property damage occur each year. A hazard tree-removal program functions annually to reduce this hazard.

Protecting people from the forest resource without degrading it is difficult because of the following factors:

Visitors cause damage that contributes to tree hazards

Most campgrounds have been built under an aging lodgepole pine forest from which the individual trees are dying and falling naturally

Lodgepole pines are weak rooted and adapted to living in dense groups. The opening up of the forest by hazard tree removal can increase the susceptibility of the remaining trees to windfall.

#### EXOTIC PLANTS

Eighty species of exotic vegetation have been introduced into the park, mostly, from Europe and Asia. These include nearly all of the noxious weeds listed by the surrounding States. If these exotics become established, the park will no longer be a representative, native ecosystem. Spotted knapweed has the capacity to cause a catastrophic collapse of the productivity of the northern winter range and dependent wildlife.

### AIR QUALITY

Clean air is an important component of the natural environment. Yellowstone is a mandatory Class I area, as designated under the 1977 Amendments to the Clean Air Act, where little additional deterioration of its air resource will be permitted. Air quality monitoring is needed to perform responsibilities associated with the park's Class I designation.

### HANDICAP ACCESS

Handicap access is being incremented as buildings and other facilities in the park are rehabilitated or replaced. The focus has been on wheelchair accessibility. Interpretive exhibits and visitor information are generally accessible to either the blind or the deaf but not both. Some facilities are only partially accessible to wheelchairs because necessary curb cuts and parking spaces do not exist. Many accessible facilities are not properly signed. No comprehensive access study or plan has been prepared. Proposed departmental regulations will establish timeframes for compliance with handicap access legislation. The park will require special funding in order to meet these deadlines.

### WINTER USE

Winter use has been growing at an average annual rate of 5 percent since statistics were first recorded in 1966 and show a marked increase from 1983 to 1985. Cross-country skiing and snowmobiling are major recreational uses, and enclosed snowcoaches provide transportation for others who come to see Yellowstone in the winter. The major concessioner now provides 220 rooms at two locations and is continually trying to improve the profitability of the winter operation. The need for a comprehensive plan for winter use has been recognized, and such a plan is currently being prepared by the park staff. Park managers must examine resource constraints and decide what type of visitor experience is appropriate for winter. Having made these determinations, the direction and extent of future development can be established. While procedures for summer operations are well established, winter operations are still being developed and coordination is needed.

### ISLAND PARK GEOTHERMAL LEASING

Adjoining Yellowstone National Park's southwestern corner is a 488,031-acre area known as the Island Park Geothermal Area. The area is comprised, principally, of Targhee and Gallatin National Forest land in Idaho, Montana, and Wyoming. This land abuts about 40 miles of the park's boundary and includes 12,905 acres of State-owned land and about 11,000 acres of privately-owned lands.

The area has long attracted interest as a potential site for geothermal energy development. There are about 134 lease applications for exploration and development pending with the Secretary of the Interior.

Late in 1984, Senator John Melcher (Democrat, Montana) sponsored an amendment to a bill that places a 20-square-mile strip contiguous to the Yellowstone boundary off limits to any geothermal drilling. The U.S. Forest Service had earlier prepared an Environmental Impact Statement and a Record of Decision that holds that certain parts of the geothermal area would be opened to exploration only if it were established that there would be no adverse effect on Yellowstone's thermal features.

To initiate exploration and development on State-owned lands, an Environmental Impact Statement would be required. There is no such requirement on private lands in the leasing area. For the reason, some activities could occur there without the knowledge of the National Park Service.

The park is monitoring thermal activity within the park to establish baseline data. These activities include total convective thermal output, chemical and isotopic analyses of waters and gases in two thermal areas, discharge, temperature and conductivity, and geyser eruptions. National Park Service research is also directed at the relationship or connection of geothermal features within the park to those outside the park.

### OTHER MINERALS

The Homestake Mining Company and the American Copper and Nickel Company have filed joint venture plans to build a new mill and underground gold mine known as the Jardine Joint Venture Project at Jardine, Montana,

located about 5 miles from park headquarters. The Mc Loren tailings dump in Cooke City, 5 miles upstream from the northeast boundary of the park, may be opened in the near future. The results of this activity may include detrimental effects to Soda Butte Creek which flows into the park. A consortium consisting of Cheveron, Inc., Anaconda Mining Company, and Manville Corporation has been formed to mine strategic minerals such as platinum, palladium, and chromium from the Stillwater deposit northeast of the park near Nye, Montana. There is also considerable oil and gas activity outside the park boundary, and the amount of lease acreage indicates more wells may be drilled.

All of the above mineral activities have the potential to individually or cumulatively affect park resources.

#### GRANT VILLAGE

In 1981, the Park Service constructed two 50-room lodging units as the first phase of a 700-room, \$20-million development outlined in the Development Concept Plan. Due to concern about overdevelopment by gateway communities, former Secretary Watt assured that all future development at Grant would be by private enterprise.

One of the park's principle concessioners, TW Services, Inc.--in accordance with a 5-year contract begun in 1982--spent \$7.4 million on four additional 50-room units, a restaurant, registration building, and 45-room dorm. Hamilton Stores, Inc., in turn, constructed an 8,000-square-foot store and a 30-room dormitory. The Park Service funded \$2.4 million for site work, utilities, and an employee trailer court to support the new facilities. All facilities opened to the public on July 1, 1984.

There is no funding on the horizon for additional development as described in the Development Concept Plan. There is a severe shortage of government housing; funding has been requested to supplement it. In addition, the absence of more government housing, critical law enforcement, maintenance, and interpretive personnel cannot be made available to serve the visiting public in this major developed area. Another big question mark is what to do with the marina. Demand for its use and rehabilitation costs must be studied. A standby power plant is necessary for the area since it is subject to frequent power outages and heavily dependent upon electricity. The question of

rather or not the area shall be operated as if development will continue in the future or under the assumption that future development of the area is not a realistic object is of paramount concern.

#### FISHING BRIDGE

Yellowstone's 1974 Master Plan prescribed that critical wildlife habitat at the Yellowstone Lake outlet and Fishing Bridge developed area was to be restored by phasing out facilities. The first phase was to eliminate all overnight facilities from Fishing Bridge including employee housing, trailer courts, the campground, and the trailer village. The Master Plan also directed the removal of the Fishing Bridge store, photo shop, and service station after an interim period.

Public response has fallen on all sides of the issue. Among other interest groups, the Chamber of Commerce at Cody, Wyoming, expressed concern that relocation of the Fishing Bridge complex would have serious economic impact on that community.

The Fishing Bridge area is described by biologists (Frank Craighead and Richard Knight) as the best grizzly habitat in the greater Yellowstone ecosystem. Historically, it is also the area of greatest frequency of human encounters with bears.

Based on a biological report on bears, the National Park Service Director reaffirmed the Service commitment to the removal of overnight facilities from the Fishing Bridge area, with the provision that they would be replaced within the park prior to their removal from Fishing Bridge.

The Wyoming Congressional delegation requested information on tax revenue implications for Park and Teton Counties, and asked that an Environmental Impact Statement be prepared on the Fishing Bridge relocation. The Environmental Impact Statement is underway with a Record of Decision scheduled for July of 1987.

#### REHABILITATION OF CONCESSION FACILITIES

In the fall of 1978, an extensive survey was conducted to investigate the condition of concessioner facilities owned and operated by the Yellowstone Park Company. The survey recommended a \$43.3-million rehabilitation

program to bring the facilities up to an accepted standard of condition.

The National Park Service reacted to these recommendations first by purchasing the facilities from the Yellowstone Park Company for \$19.9 million in fiscal year 1979, and then embarking on a 7-year, \$43.1-million rehabilitation program--Package 620, fiscal year 1980 through fiscal year 1986.

In the fall of 1981, the National Park Service contracted with TW Services, Inc., (TWS) to operate concessioner facilities. An innovative, as well as critical, portion of this contract is the Capital Improvement and Maintenance Program (CIMP) that requires TWS to commit 22 percent of the previous year's gross revenue towards maintaining and upgrading the facilities they operate.

By the time the initial 5-year period of the contract has passed, TWS's CIMP will not provide the rehabilitation funds (due to other commitments) required to continue with an analogous "Package 620" program as intended.

Based on this analysis, the park has made the decision to develop a future-year program. This program identifies \$26 million in projects of the "long-term rehabilitation" type given in the 1978 survey report, as well as many unfunded health/life safety projects. This will virtually complete the National Park Service's commitment to upgrade facilities purchased in 1979 and allow phasing into a cyclic maintenance mode.

#### CONCESSION CONTRACTS

The two major contracts have been, at time, difficult to interpret and administer. Specific problems are listed below:

Hamilton Stores' exclusive authorization to sell "souvenirs" in Yellowstone is difficult to monitor and the term "souvenir" is somewhat subjective and difficult to define.

The phaseout of certain concession facilities and services defined in park planning documents--such as West Thumb, Fishing Bridge, and Old Faithful cabins--has created controversy with concessioners and outside interests.

The joint venture for operation of Yellowstone's service stations is cumbersome since there are essentially three owners--Hamiltons, TW Services, and the National Park Service. This allows for no feasible mechanism for accomplishing long, overdue maintenance and a reconstruction program based on the Old Faithful and Fishing Bridge/Lake Development Concept Plans.

#### OLD FAITHFUL

The final Development Concept Plan for the Old Faithful developed area was approved by Regional Director Mintzmyer on January 10, 1985.

The aims of this plan are to (1) enhance the truly unique quality of geyser basin by reducing inappropriate development, (2) improve vehicular and pedestrian circulation, (3) improve orientation and information, (4) provide adequate and properly located support services, and (5) provide appropriate winter-use facilities.

Accomplishment of the objectives detailed in the plan will take many years. The park must assure that comprehensive designs are completed and that funding is secured to assure that the objectives stated above are realized in the foreseeable future. Otherwise, the visitor will continue to face a disjointed circulation and parking system as well as other major problems pointed out in the Development Concept Plan.

#### TELECOMMUNICATIONS

Considerable changes are anticipated in the park's radio, telephone, and data communications systems over the next decade. The need for enhanced telecommunications planning/management and modification and revamping or upgrading of services to maximize efficient use is the result of the following factors:

The cost of telephone services has increased significantly since the divestiture and is expected to continue to do so

The park's implementation and dependence upon computer and data communications systems

The continuing evolution of technology and options available for meeting or combining requirements

The park's dependence upon automated alarm monitoring and data acquisition system

Budget constraints and the need/opportunities for cost savings or cost avoidance under the new deregulated telecommunication environment.

#### CULTURAL RESOURCE MANAGEMENT

A Cultural Resource Management Plan must be developed for Yellowstone to assure proper management of cultural resources in the future. Yellowstone has over 1,000--or one-half--of the cultural resources in the Rocky Mountain Region. Regional Office assistance is necessary to assure timely completion of this very complex and comprehensive document. The park must take a stronger, more informed role in the treatment of its cultural resources.

#### STRUCTURAL FIRE PROGRAM

Although many improvements related to fire safety have been accomplished, additional work is required. Additional buildings need to be "fire-proofed," and outdated equipment must be replaced. Properly staffed fire brigades must be provided at areas that have large, overnight visitation. Fire suppression and rescue equipment must be replaced to fit out needs.

#### LANDSCAPE REHABILITATION

Many of the developed areas have been left to "go natural" or have revegetated on their own for the past 50 to 70 years. A comprehensive landscape/site restoration plan must be developed for all areas as well as roadsides. Attention must be directed toward "enhanced revegetation," handicap accessibility, pedestrian spaces and circulation, repaving, new curb and gutter work, and many other components.

#### PARK STREET - GARDINER

For several years, Yellowstone and the gateway community of Gardiner have been discussing the possibility of a boundary adjustment that would be beneficial to both the park and the community.

A boundary adjustment would solve a law enforcement problem for both the town and the park and would relieve the park of maintenance responsibilities from which the park receives no benefit.

This problem came about when structures on Park Street in Gardiner were built up to the park boundary. Since the street, sidewalk, and parking areas are inside the park boundary, Yellowstone has maintenance and law enforcement responsibility.

Law enforcement has been a problem because of the high frequency of incidents requiring law enforcement on one or both sides of the jurisdictional line and the differences in laws and law enforcement credentials required to apprehend perpetrators. For instance, there are several bars on this street in which disorderly conduct incidents originate; but when the perpetrators leave the bar, they cross into park jurisdiction. Cooperative procedures between park and local law enforcement officers have been worked out, but they still result in costly duplication of effort.

Maintenance costs to the park for plowing, resurfacing, and so on are not insignificant. Since the street and sidewalk serve private enterprises outside the park, maintenance should be the responsibility of the local jurisdiction--Park County, Montana.

The community and county are interested in pursuing the issue based on the park's commitment to upgrade the street. Construction would consist of repaving the street, possibly regrading drainage, and building new sidewalks and parking areas.

#### EMPLOYEE HOUSING

Yellowstone National Park operates 479-quarter units park wide--321 units are houses and apartments and 158 units are trailers. Practically all trailer units and about 60 percent of the houses and apartments are for seasonal employees. In general, trailer units are in fair-to-poor condition reflecting the effects of Yellowstone's harsh climate on temporary housing that ranges to over 30 years old. House and apartment units are generally in good-to-fair condition depending on age and rehabilitation accomplished over the last few years.

Income generally does not meet expenditures for either permanent or seasonal housing. Cyclic programs are not followed. The Park Restoration and Improvement Program (PRIP) is the only reason quarters are repaired and/or rehabilitated as they should be. Expenses of seasonal units practically always exceed income because of the

limited time that units are occupied, the expense of maintaining quarters especially in the central park areas with severe winter conditions and high maintenance costs, and the generally poor condition of most of the seasonal quarters.

#### SOLID WASTE DISPOSAL COSTS

Yellowstone National Park disposes of all park solid waste at locations far removed from the park. Solid waste from the South Entrance/Grant/Lake and Canyon areas are transferred to Lake to large semitrailers for transport 55 miles north of the park to an energy-recovery plant at Livingston, Montana. Solid waste from the Cooke City/Tower/Mammoth areas are transferred at Mammoth to semitrailers and transported to Livingston also. Solid waste from Old Faithful/Madison/ West Entrance areas are taken by garbage packer to a transfer station at West Yellowstone, Montana, and transported 60 miles to a landfill at Ennis, Montana.

In both cases, disposal is the responsibility of the local governmental districts operating the disposal facilities. Income at the energy-recovery plant in Livingston is generally less than costs, and the county has had to subsidize the district for approximately one-third to one-half of its expenses. Charges at West Yellowstone have increased significantly over the last few years due to unanticipated costs not covered by the budget. As these districts gain experience, it is expected that cost increases will stabilize. Disposal costs paid to the State-controlled sites--now at about \$94,000 per year--are projected to increase to about \$140,000 within the next 3 years due to anticipated district cost increases. These increases should then stabilize to the range of 7- to 10-percent increase per year.

#### FACILITY REHABILITATION

Yellowstone National Park is in its fourth year of PRIP funding with special emphasis on facility rehabilitation--especially on life/safety concerns. From the standpoint of park buildings and utilities, PRIP funding, to date, has amounted to about \$4.4 million. Most park facilities have not been adequately maintained since initial construction and the remaining backlog of building and utility facility rehabilitation needs stand at about \$6.6 million. Additional funds

are needed annually for an adequate Cyclic Maintenance Program to continue preventive maintenance on a sustained basis.

#### EQUIPMENT AMORTIZATION PROGRAM

Equipment ranges from poor to new with the majority of the larger equipment falling into the poor category. Currently, 187 pieces of equipment are fully amortized but still in use. Approximately \$7.5 million will be required to replace the amortized equipment. Yellowstone currently receives some \$400,000 annually from the Equipment Replacement Fund--a rate that perpetuates the obsolescence of equipment. As more and more equipment exceeds its useful life, maintenance costs increase to a point of diminishing returns--an existing situation that continues to deteriorate.

#### FUNDING OF ROAD REHABILITATION

Most of the roads are in poor condition due to sub-base and drainage failures. Only 65 miles of road are acceptable. The roads were mainly constructed decades ago over old horse trails and wagon roads without anticipating the current number and weight of vehicles or the early opening of roads in the spring. Road inventory studies by the Federal Highway Administration indicate that the structural index of most roads is low, bridges are in need of repair, and shoulders are insufficient. The roads have deteriorated to such a state that Yellowstone's Cyclic Road Program (\$1.2 million per year) is used mainly for patching and stop-gap repairs. With the advent of the Federal Lands Highway Program, part of the funds from the 5 cents per gallon gas tax--the Federal Highway Administration has estimated that upward of \$112 million in 1985 dollars--will be necessary to reconstruct the park roads to an acceptable, maintainable level. Funding levels are inconsistent, may even be curtailed further, and have historically been subject to slippage as far as scheduling is concerned. If funding is curtailed, sections of roads may have to be closed for public safety.

#### V. MANAGEMENT OBJECTIVES

In the Management Objectives for the National Park Service, the Director has given the broad guidelines for servicewide management. For special emphasis, some aspects of the national objectives have been reiterated here. Within the remaining national

guidelines, more detailed, specific objectives outline the management direction for Yellowstone National Park.

To perpetuate the natural ecosystems within the park in as near natural conditions as possible for their inspirational, education, cultural, and scientific values for this and future generations, park management's objectives are to:

Permit natural processes to function within the park ecosystem with minimum disturbance by man's activities

Predicate public use, protection, development, interpretation, and management of the natural and cultural resources of Yellowstone National Park on documented data obtained through appropriate investigation and research.

Maintain an optimum level of control over garbage disposal, food storage, and roadside feeding to avoid recurrence of the bear problem. Through intensive training, retain a high level of expertise in bear trapping, immobilization, and handling. Through education, interpretation, and public information engender visitor cooperation and support for grizzly bear recovery.

Manage the fishery resource to restore and preserve native fish populations.

Allow fire to plan a natural role in the park. Within appropriate national guidelines, assess the potential and make a management decision on each fire that occurs. This decision could range from a total suppression effort to allow fire to run its natural course without interference or any combination of these.

On a cooperative basis with other agencies, develop Greater Yellowstone Ecosystem guidelines for the management of threatened or endangered species.

Manage Yellowstone National Park for year-round use.

Maintain close and harmonious relations with neighboring communities, counties, and States and work closely with other Federal agencies, private

groups, organizations, and individuals to provide a full understanding of park operations and purpose.

Identify and minimize the impacts of activities outside the park which may be detrimental to the park resources and purpose.

Identify, evaluate, and protect the cultural resources of the park.

Eliminate trash and structural debris from the backcountry.

Survey the entire Yellowstone backcountry trail system and relocate, rebuild, or upgrade as necessary to meet current requirements.

Conserve nonrenewable fossil fuel sand seek ways to utilize alternate energy sources in park operations.

Provide for the highest quality of use and enjoyment for each visitor to Yellowstone National Park and encourage all interests and ages to make full and appropriate use of park resources.

Provide maximum opportunity for park visitors to move freely and safely throughout the park using a variety of transportation methods that cause minimum interference with the natural environment. Consideration should be given to developing a system of walking paths or public conveyances to principal park features, not accessible by automobiles, which would be handicap accessible.

Assure cooperation with Federal, State, and local agencies and private enterprise in efforts to provide an appropriate range of overnight and other visitor accommodations and related services outside the park through coordinated planning.

Minimize visual intrusion of human development on park resources.

Make the public aware of unusual environmental conditions and hazards and provide reasonable visitor protection.

Provide a variety of interpretive media and activities to increase visitor safety and understanding and to support appreciation for conservation of the park's natural, historical, and cultural resources. Interpret each unique park feature according to its dominant theme, such as history at Fort Yellowstone and geothermal systems at Old Faithful. To park visitors and neighbors, communicate the rationale, philosophy, and research data that undergrid park management.

Evaluate the relationships of existing concession developments taking into consideration the approved Master Plan, the current needs pertaining to management and visitation, and the potential impacts on the environment.

Establish a comprehensive data base of air resources to use in protection of the park's air quality as related to the Clean Air Act and the park's Class I designation.

## APPENDIX A

### 26 LAWS FOR NAT. PARK SERVICE, PARKS, & MONUMENTS

	<i>Page</i>
Excerpt from Sundry Civil Act of July 1, 1918, restricting road extensions and improvements in the Yellowstone National Park-----	41
Act of February 25, 1919, authorizing sale of certain lands at or near Yellowstone, Mont., for hotel and other purposes-----	42
Act of June 5, 1924, amending Act of March 3, 1911, to codify, revise, and amend laws relating to the judiciary, providing for the appointment of deputy marshals to reside in Yellowstone National Park-----	42
Joint Resolution of February 28, 1929, authorizing appointment of a Yellowstone National Park Boundary Commission to inspect areas involved in proposed adjustment of Yellowstone National Park boundaries-----	43
Act of March 1, 1929, revising Yellowstone National Park boundaries-----	43
Act of April 19, 1930, amending Act of March 1, 1929, revising Yellowstone National Park boundaries-----	45

**An Act To set apart a certain tract of land lying near the head-waters of the Yellowstone River as a public park, approved March 1, 1872 (17 Stat. 32)**

**Public park established near head-waters of Yellowstone River.**

**Boundaries. (R.S., sec. 2474.)**

**(Amended by 45 Stat. 1435, see p. 43; and 46 Stat. 220, see p. 45.)**

**Certain persons locating, etc., thereon, to be trespassers.**

**Secretary of Interior to have control of park; to make rules for its care.**

**(Supplemented by 39 Stat. 535, as amended. See p. 9.)**

**(R.S., sec. 2475.)**

**May grant certain leases and expend proceeds thereof.**

**Amended by 39 Stat. 535, as amended. See p. 9.)**

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the tract of land in the Territories of Montana and Wyoming, lying near the head-waters of the Yellowstone River, and described as follows, to wit, commencing at the junction of Gardiner's river with the Yellowstone river, and running east to the meridian passing ten miles to the eastward of the most eastern point of Yellowstone lake; thence south along said meridian to the parallel of latitude passing ten miles south of the most southern point of Yellowstone lake; thence west along said parallel to the meridian passing fifteen miles west of the most western point of Madison lake; thence north along said meridian to the latitude of the junction of the Yellowstone and Gardiner's rivers; thence east to the place of beginning, is hereby reserved and withdrawn from settlement, occupancy, or sale under the laws of the United States, and dedicated and set apart as a public park or pleasure-ground for the benefit and enjoyment of the people; and all persons who shall locate or settle upon or occupy the same, or any part thereof, except as hereinafter provided, shall be considered trespassers and removed therefrom. (U.S.C., title 16, sec. 21.)*

**SEC. 2.** That said public park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be, as soon as practicable, to make and publish such rules and regulations as he may deem necessary or proper for the care and management of the same. Such regulations shall provide for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition. The Secretary may in his discretion, grant leases for building purposes for terms not exceeding ten years, of small parcels of ground, at such places in said park as shall require the erection of buildings for the accommodation of visitors; all of the proceeds of said leases, and all other revenues that may be

derived from any source connected with said park, to be expended under his direction in the management of the same, and the construction of roads and bridle-paths therein. He shall provide against the wanton destruction of the fish and game found within said park, and against their capture or destruction for the purposes of merchandise or profit. He shall also cause all persons trespassing upon the same after the passage of this act to be removed therefrom, and generally shall be authorized to take all such measures as shall be necessary or proper to fully carry out the objects and purposes of this act. (U.S.C., title 16, sec. 22.)

Shall prevent  
wanton destruc-  
tion of fish and  
game and remove  
trespassers.

Excerpt from "An Act Making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1884, and for other purposes," approved March 3, 1883 (22 Stat. 626)

For the protection and improvement of the Yellowstone National Park: For every purpose and object necessary for the protection, preservation, and improvement of the Yellowstone National Park, including compensation of superintendent and employees, forty thousand dollars, two thousand dollars of said amount to be paid annually to a superintendent of said park and not exceeding nine hundred dollars annually to each of ten assistants, all of whom shall be appointed by the Secretary of the Interior, and reside continuously in the park and whose duty it shall be to protect the game, timber, and objects of interest therein; the balance of the sum appropriated to be expended in the construction and improvement of suitable roads and bridges within said park, under the supervision and direction of an engineer officer detailed by the Secretary of War for that purpose.

Yellowstone Na-  
tional Park.

The Secretary of the Interior may lease small portions of ground in the park, not exceeding ten acres in extent for each tract, on which may be erected hotels and the necessary outbuildings, and for a period not exceeding ten years; but such lease shall not include any of the geysers or other objects of curiosity or interest in said park, or exclude the public from the free and convenient approach thereto; or include any ground within one quarter of a mile of any of the geysers, or the Yellowstone Falls, nor shall there be leased more than ten acres to any one person or corporation; nor shall any hotel or other buildings be erected within the park until such lease shall be executed by the Secretary of the Interior, and all contracts, agreements, or exclusive privileges heretofore made or given in regard to said park or any part thereof, are hereby declared to be invalid; nor shall the Secretary of the Interior, in any lease which he may make and execute, grant any exclusive privileges within said park, except upon the ground leased.

Lease of grounds;  
conditions.  
(Repealed by 28  
Stat. 222. See  
p. 34.)

The Secretary of War, upon the request of the Secretary of the Interior, is hereby authorized and directed to Detail of troops,  
etc., for protec-  
tion of park.

APPENDIX B

ision of Administration  
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MYPFS By Park Priority

Page

PARK PRIORITY	REGION PRIORITY	10-238 NO.	TITLE
1.0	0.9	620	Rehab. Concession Facilities
2.0	4.0	491	Revise Exhibit in Canyon VC
3.0	14.0	636	Upgrade MJ Wastewater Plant
3.5	12.0	361	Rehabilitate 38 Ft Yellowstone Bldg.
4.0		703	Reroof or Repair Roofs Ft Yell
5.0		683	Repair & Restore Chimneys Ft Yell
6.0	15.0	254	Rebuild 17-mi. Thumb-OF Road
7.0		730	Rehab. Grant Village Marina
8.0		711	Complete List of Classified Structures
9.0		728	Life Safety Improv to Offices & Dorms
10.0		771	West Thumb Rehab.
11.0		651	Repl. Temporary Qtrs.
12.0		740	Reroof 131 Bldg.
13.0		639	Rehab. Gardiner/Concession Rd.
14.0		752	Repl. GV & BB Docks
15.0		754	Repl. Breakwater GV
16.0		684	Repair Structural Foundations Ft. Yell.
17.0		685	Rehab. Ext. Ft. Yell.
18.0		712	Mortality Survey - Elk Range
19.0	270.0	275	Tower Falls Trail
20.0		686	Stabilize Park Historic Structures
21.0		679	Repl. Temporary Qtrs.
22.0	40.0	479	Rebuild Sylvan Pass
22.1		773	Stabilize Lamar Buffalo Ranch
23.0	27.0	633	Preserve Lake Ranger Sta.
24.0		649	Lake Hospital
25.0		669	Restore OF Inn
26.0	21.0	662	Lamar River Bridge
27.0		660	Planning Road and Bridge Rehab.
28.0		642	Restore Log Str.
29.0		749	Upgrade Building 70 to Meet Fire Code
30.0		713	Backcountry Mgn. Plan
31.0		760	Repair Water Intake - Canyon
32.0		714	Exotic Plant Monitoring
33.0		761	Replace or Rehab Brick Chimneys Mammoth
34.0		717	Protect & Restore YNP Streams
35.0		715	Hazard Tree Removal
36.0		751	Paint Park Bldg.
37.0		767	Rewire Historic Park Bldg's.
38.0		768	Rewire Park Bldg.'s
39.0		742	Rehab & Resurface TF Foot Trail
40.0	51.0	264	Water - Indian Cr. Cmpg.
41.0	63.0	621	Reactivate Hydroelectric Power Plant
42.0	10.0	668	Plan, Produce, Wayside Exhibits
43.0	22.0	553	Water Quality Bechler River

MYPFS By Park Priority

PARK PRIORITY	REGION PRIORITY	10-238 NO.	TITLE
44.0		682	Rehab. Irt. Ft. Yell.
45.0		673	Finish Const. OF, Lake, WT.
46.0	418.0	447	Rehab. Mammoth Clinic, Lake Hospital
47.0		671	Reconstruct 20 mi. Mam-Tower
48.0	15.0	667	Norris Museum Exhibits
49.0		735	Amphitheater Rehab.
50.0		681	Complete Historic Structures Inspections
50.5		720	Rehabilitate Concessioner Warehouse-Office
51.0		710	Preserve Exterior Lake Hotel
52.0		692	Rehab. Heating & Plmb. Lake Hotel
53.0		765	Replace Unsafe Sidewalks - Mammoth
54.0		748	Reset Park Boundary
55.0		675	Reconstruct 16 mi. Can-Tower
56.0		766	Rehab. Ft. Yell. Heating Plant
57.0		718	Evaluate Hooking Mortality
58.0		693	Rehab. Heating & Plmb. OF Inn
59.0		739	Repl. Fuel Dispensers
60.0		678	Bikeways
61.0		758	Repl. Retaining Wall BB
62.0	47.0	382	Rebuild 12-mi. Mad-Nor Road
63.0		753	Replace Qtrs with Modular Units
64.0		694	Rehab. Heating & Plmb. Mam. Hotel
65.0		672	Reconstruct 5.7 mi. Mad-OF
66.0	23.0	554	Water Quality on Fire Ecology
67.0	4.0	645	Audiomagnetotelluric Study
68.0		674	Reconstruct 5.7 mi. Mam-Gardiner
69.0		734	Rehab Site & Pave Gardiner Service Area
70.0	178.0	676	Reconstruct 25 mi. NE Entr.
71.0	17.4	279	Mammoth/North Entr. DCP
72.0		695	Rehab. Baths Lake Hotel & Cabins
73.0	45.0	637	Expand Concession Utility & Roads
74.0	30.0	634	Preserve 5 Patrol Cabins
75.0	132.0	490	Repl. Trailer Restrooms
76.0		225	Archeological Survey
77.0		696	Rehab. Baths Mammoth
78.0	58.0	661	Overlay 14-mi. Grand Loop
79.0	47.5	663	Rehab 40.4 Miles Grand Loop Road
80.0	188.0	196	N Entr. Kiosk & Apartments
81.0	21.0	665	Renovate Exhibit - Albright VC
82.0		697	Rehab. Baths OF Inn
83.0	25.4	471	South Entr. DCP
84.0		743	Upgrade Bathrooms - Bldg. 70
85.0		756	Repl. Amphitheater Seats
86.0	34.4	288	Northeast Entr. DCP
87.0		666	Interpretive Prospectus

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PARK RIOORITY	REGION PRIORITY	10-238 NO.	TITLE
88.0		741	Install Utility Meters
89.0		698	Rehab Restrooms Roosevelt Lodge
90.0		762	Paint Canyon Sewage Plant
91.0		759	Overlay Visitor PA's
92.0		750	Install Ceiling OF VC
93.0	370.0	151	Washhouse Lake Trailer Court
94.0		726	West Entr. DCP
95.0	41.0	655	Historic Resource Base Map
96.0	323.0	295	Reconstruct Canyon Cmpg.
97.0		687	Complete Nat. Register Nominations
98.0	272.0	290	Fountain Paint Pot CS
99.0		722	Tower/Roosevelt DCP
100.0		757	Repl. TIS
101.0		747	Dredge BB Marina
102.0		724	Canyon DCP
7.0		723	Madison DCP
.0		699	Rehab Furnishings & Fixtures Lake Hotel
105.0		744	Repl. Cmpg. Tables & Fireplaces
107.0		700	Rehab Furnishing & Fixtures OF Inn
108.0		727	Norris DCP
109.0		680	Const. Multi-unit Str.
110.0	14.0	632	Stabilize Mammoth Mail Carrier Residence
111.0		729	Rehab Kitchen & Employee Dinning Snowlodge
112.0		677	Reconstruct GV Marina Rd.
113.0		701	Rehab Furnishing & Fixture Mammoth
114.0		725	East Entr. DCP
115.0		755	Repr. Mason Walls
116.0		764	Beartooth Commercial Power
117.0		746	Repr. 38 Bridges
118.0	369.0	413	Shower/Laundry S Entr.
118.1	17.0	493	Preservation of Historic Collections
119.0		691	Computerization of Historic Collection
120.0	499.0	380	Tower Falls Cmpg.
121.0		737	Overlay Geyser Basin Parking Norris
122.0		702	Rehab. Corridors Lake Hotel
123.0	493.0	428	Construct Benches OF Area
124.0	348.0	184	District Hdqt. OF
125.0		763	Repair Trails
126.0		703	Rehab. Corridors Mammoth
127.0		704	Rehab Corridors OF Inn
128.0		745	Replace Overhead Powerlines - S E
7.0		736	Lamar Hydroelectric Plant
.0	506.0	347	Daisey Geyser Trail
131.0		731	Renovate Restrooms in Employee Doms Concre

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MYFFS By Park Priority

PARK	REGION	10-238	TITLE
PRIORITY	PRIORITY	NO.	
132.0	302.0	163	Petrifies Tree Road
133.0	481.0	185	Lone Star Geyser Trail
134.0		705	Rehab Site & Landscape OF
135.0	472.0	237	Construct Trail and Bridge
136.0	204.0	127	Reconstruct S Entr. Kiosks
137.0		732	Upgrade Cabins Furnishings & Baths Canyon
138.0		689	Plan & Develop Space for Historic Collect
139.0	38.0	654	Study - Backcountry Cultural Resource
140.0	511.0	226	Boat Patrol Sta. GV
141.0	60.0	657	History of Resource Mgr.
142.0		706	Rehab Site & Res. Landscape Lake
143.0	334.0	136	Backcountry Ranger Sta. - Gal.
144.0	57.5	658	History of Concessions
145.0	156.0	494	Restore Norris Soldier Sta.
146.0		707	Rehab Site Roosevelt Lodge
147.0		708	Rehab Site Mammoth Concessions
148.0		733	Rehab. Site & Landscape Concession Area Ca
149.0		769	Conduct Archeological Survey of Backcountr
150.0		770	Complete Archeological Survey of Developed
151.0		738	Provide Standby Power GV
152.0		688	Care and Preservation of Photograph Collec
153.0	56.0	623	Construct 300-KW Hydroelectric Power Plant



